

FIGURE 1

Induction of bone marrow stem cell proliferation

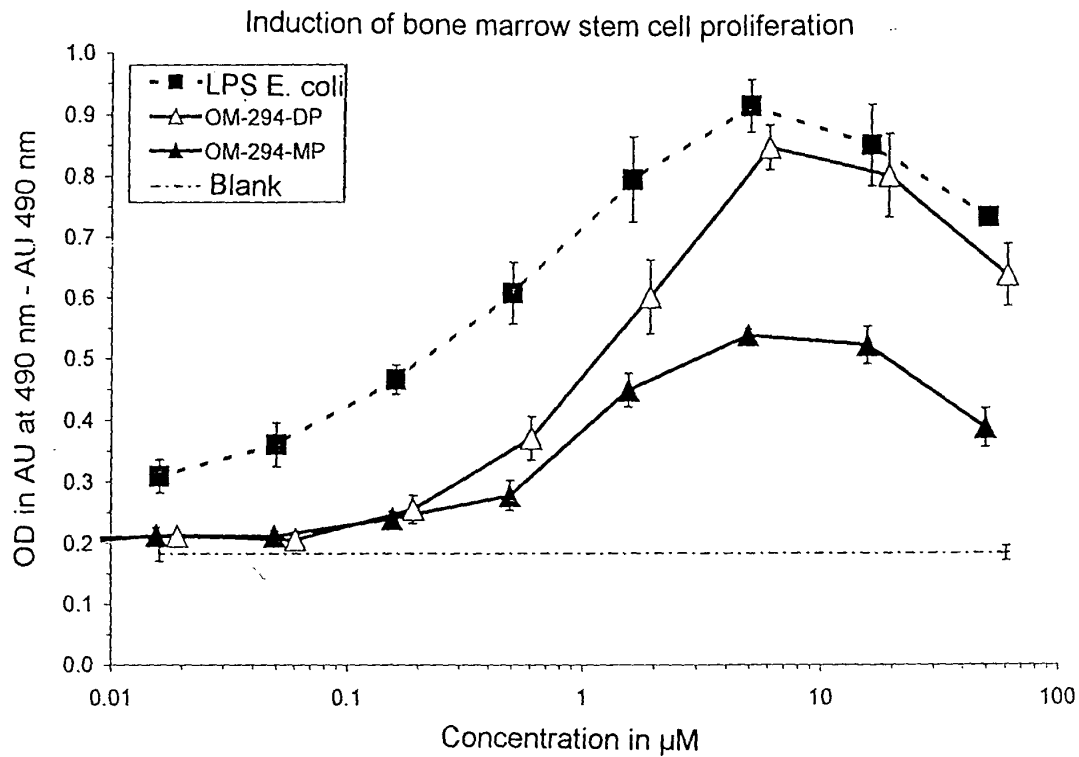


FIGURE 2

Induction of NO production in murine macrophage cells

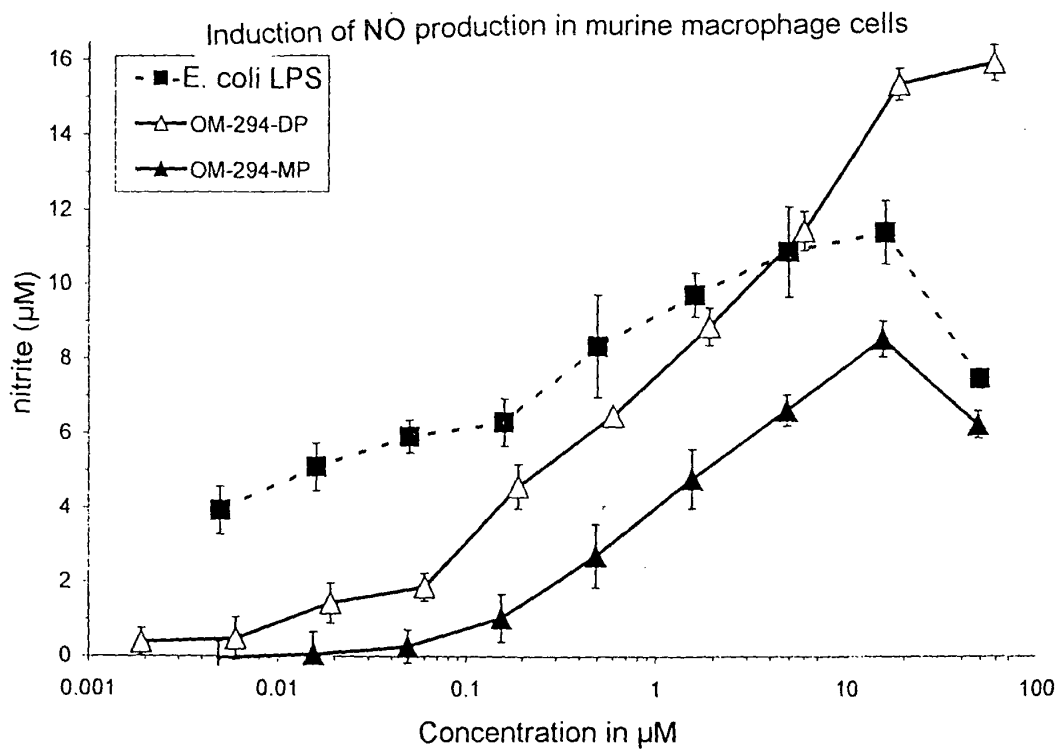


FIGURE 3

Inc of Dextran-FITC conjugate

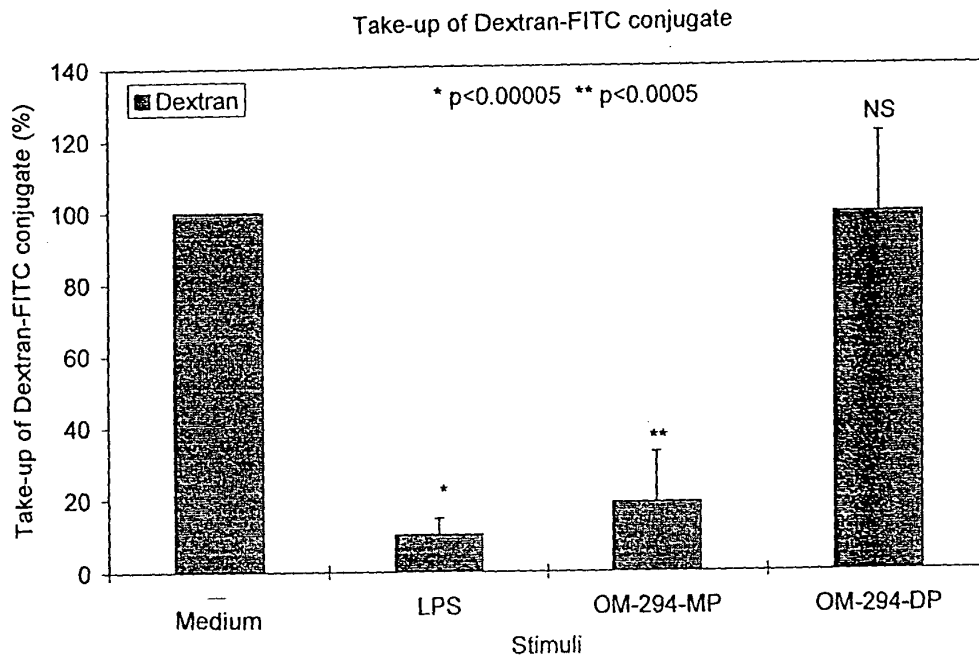


FIGURE 4

Dextran-FITC conjugate take-up : Dose related effect at low concentrations

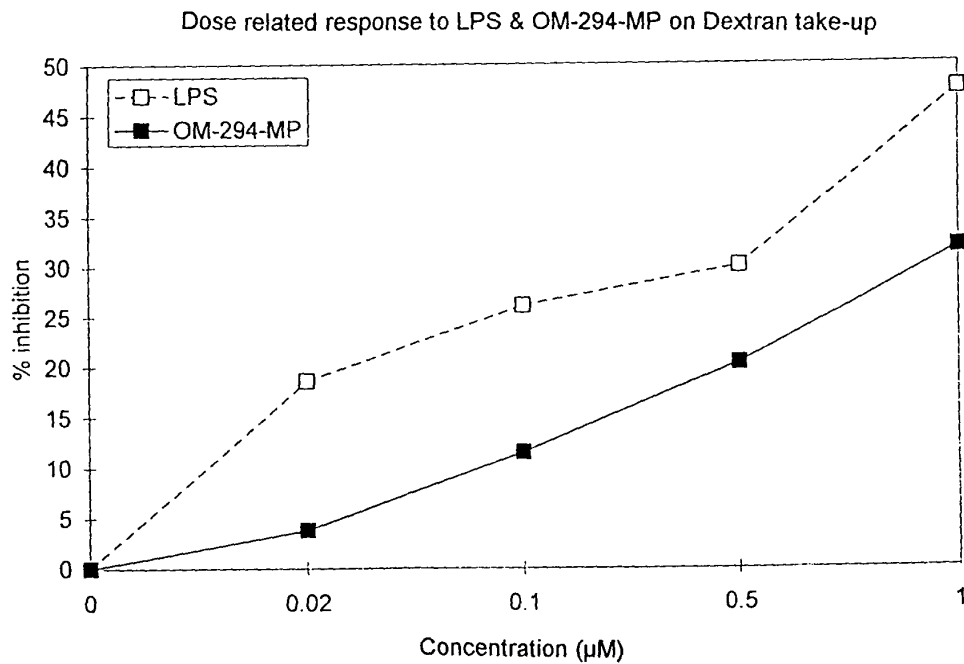


FIGURE 5

Dose related effect in terms of Dextran-FITC conjugate take-up at high concentrations

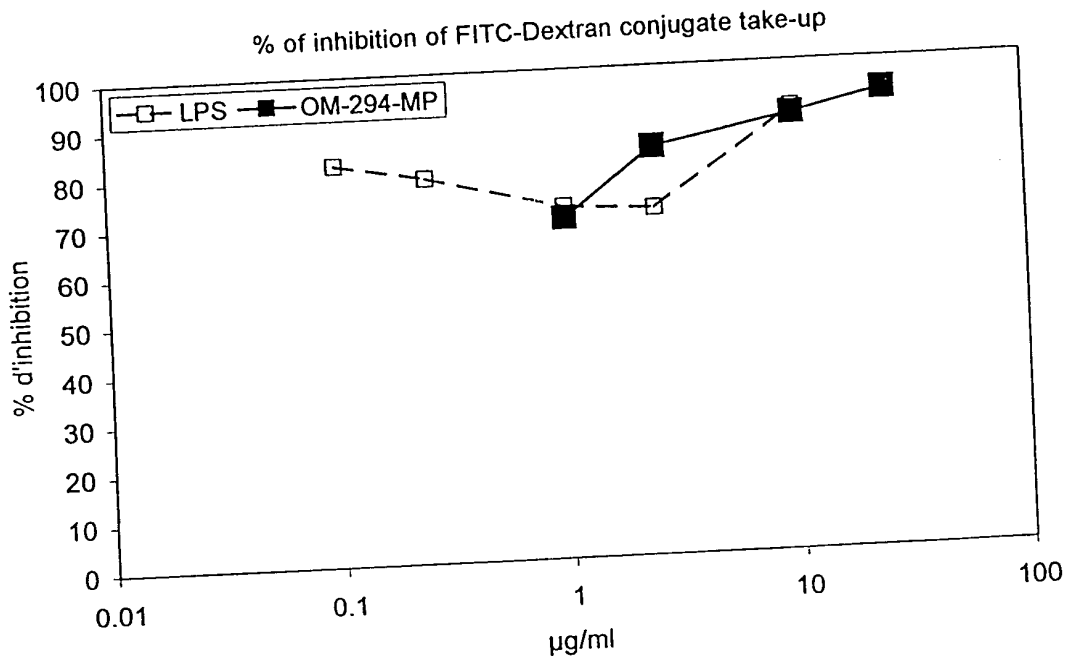


FIGURE 6

CD40 co-stimulating surface marker expression

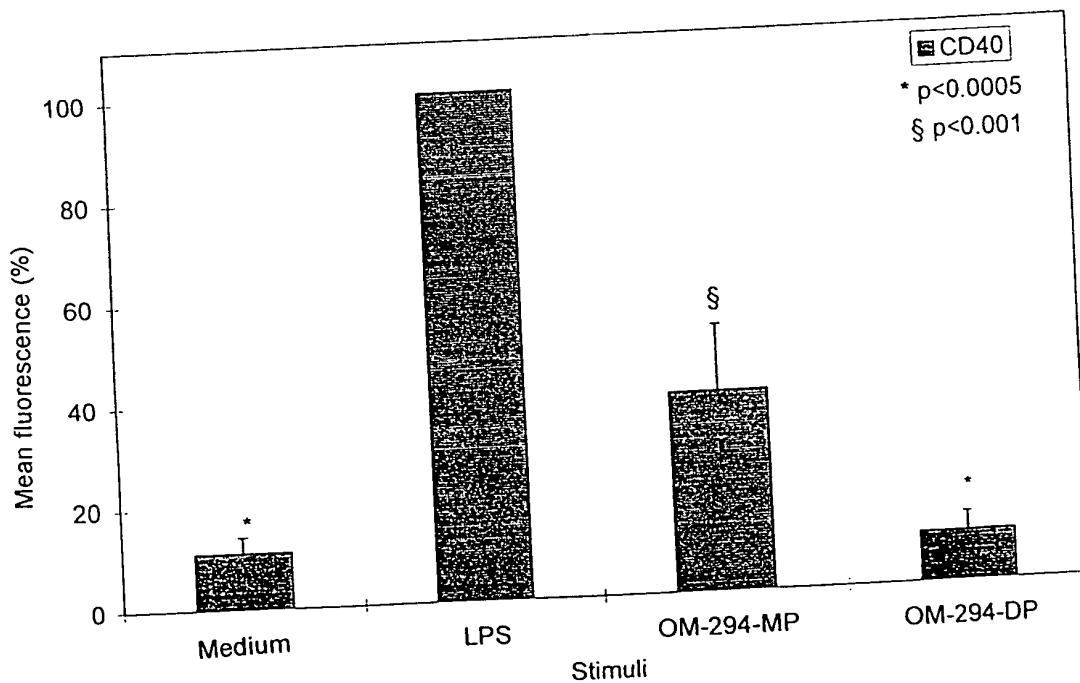


FIGURE 7

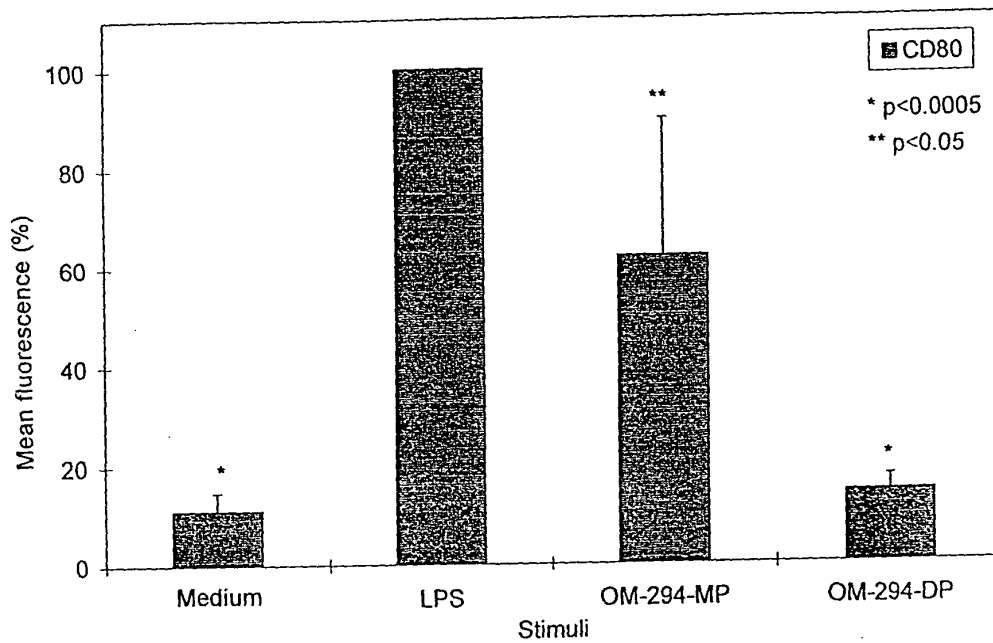
Expression of CD86 co-stimulating surface marker

FIGURE 8

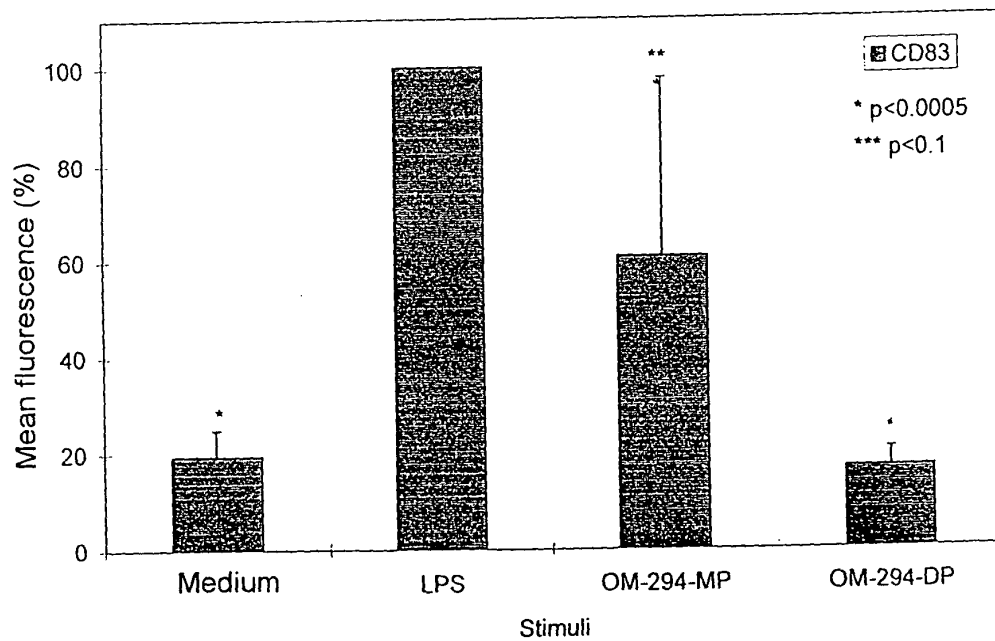
Expression of CD83 co-stimulating surface marker

FIGURE 9

Expression of CD80 co-stimulating surface marker

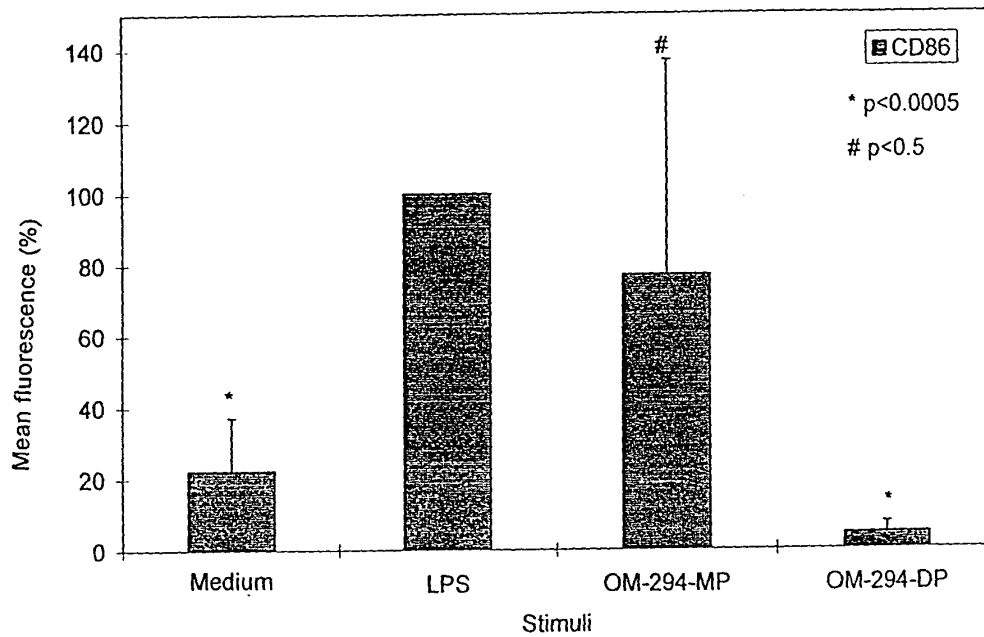
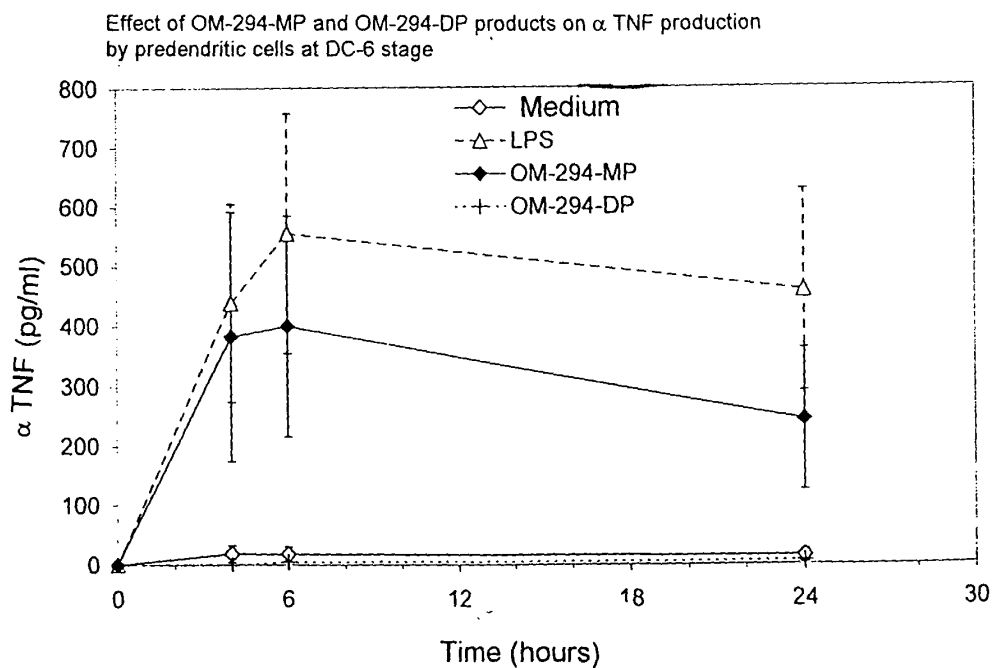


FIGURE 10

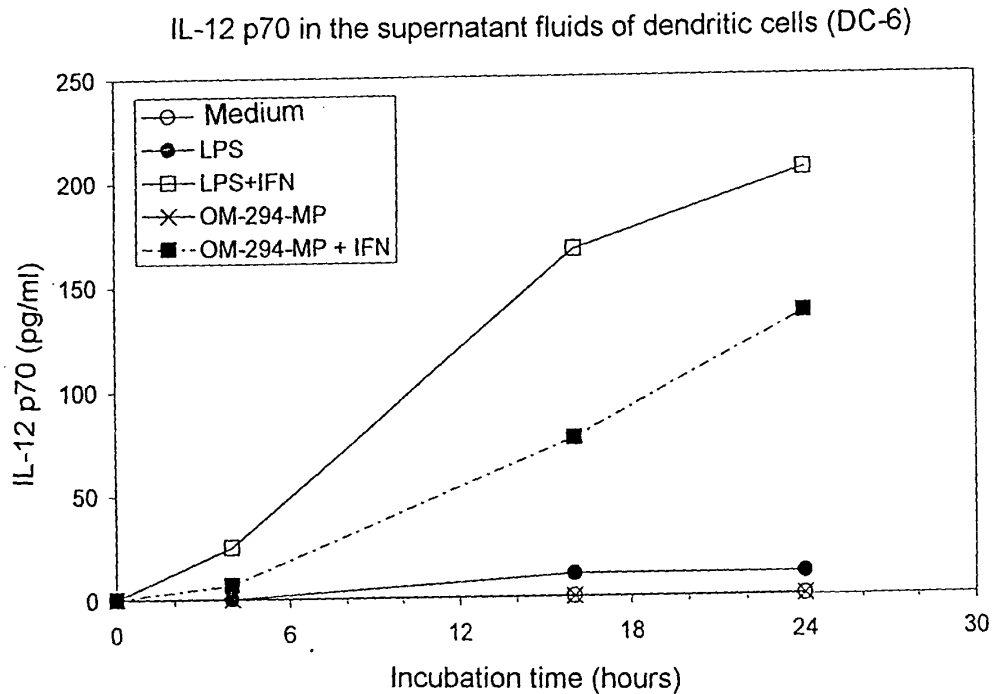
Effect of OM-294-MP and OM-294-DP products on α TNF production by predendritic cells at DC-6 stage



6/32

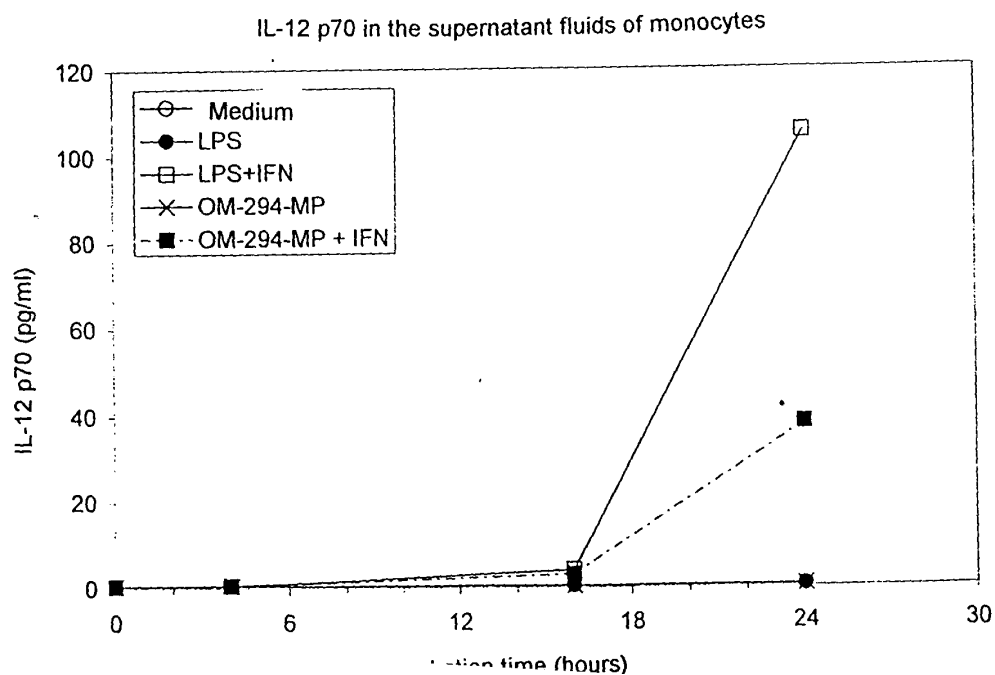
FIGURE 11

Effect of OM-294-MP and OM-294-DP products on IL-12 p70 production by predendritic cells at DC-6 stage (IFN = γ IFN)

**FIGURE 12**

Effect of OM-294-MP products on IL-12 p70 production by monocytes

(IFN = γ IFN)



7/32

FIGURE 13

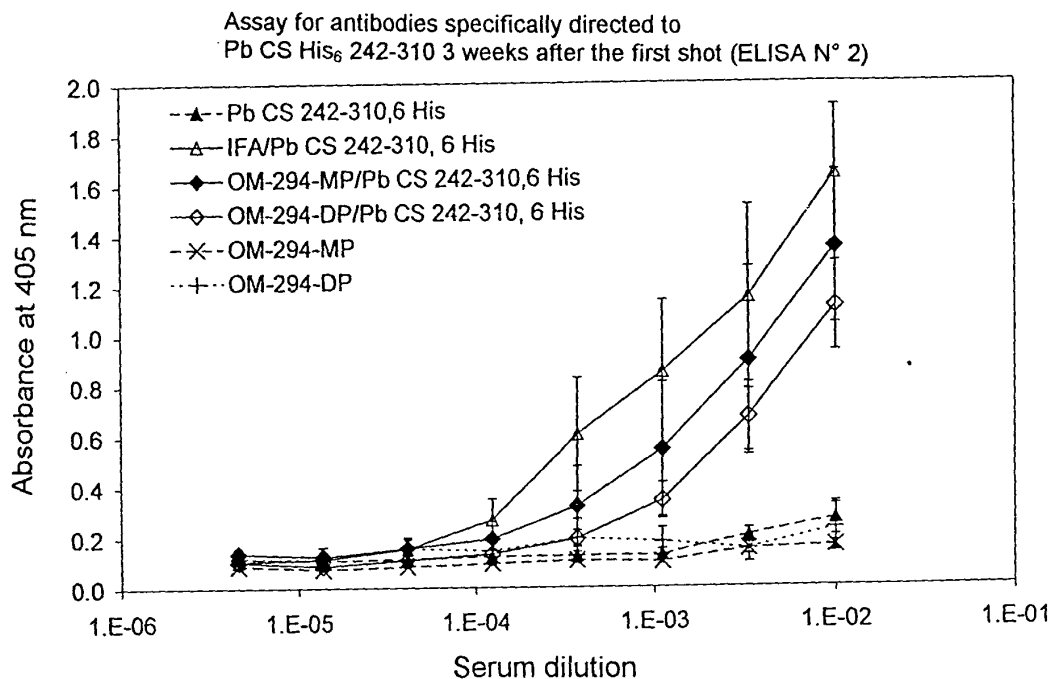
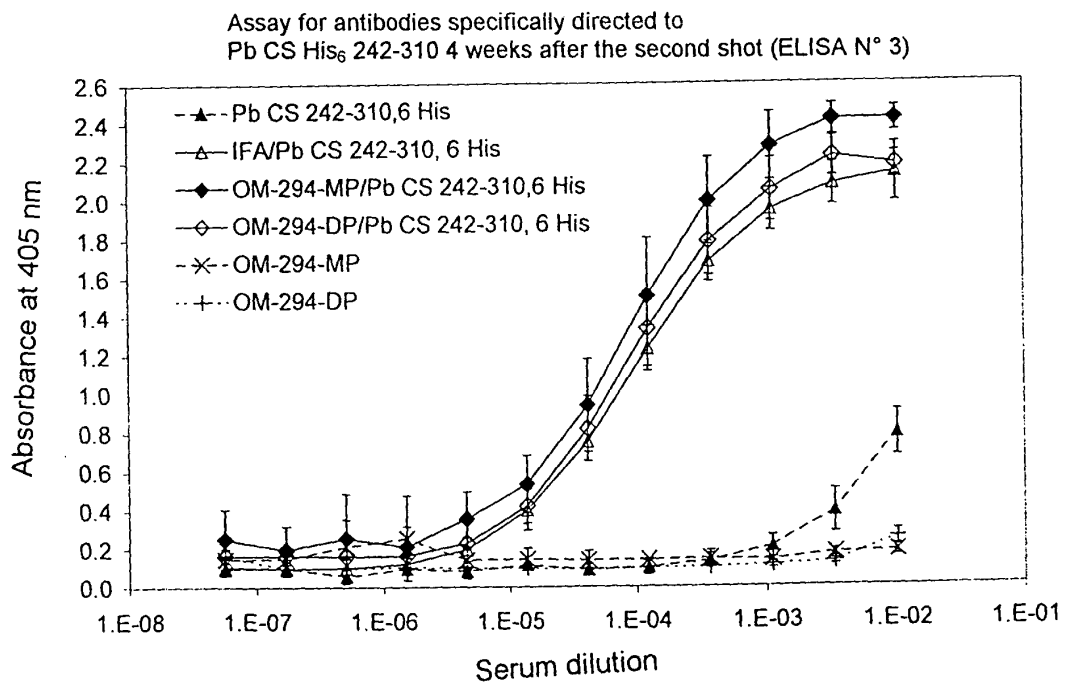
ELISA 2 after the first immunization treatment

FIGURE 14

ELISA 3 after the second immunization treatment

8/32

FIGURE 15

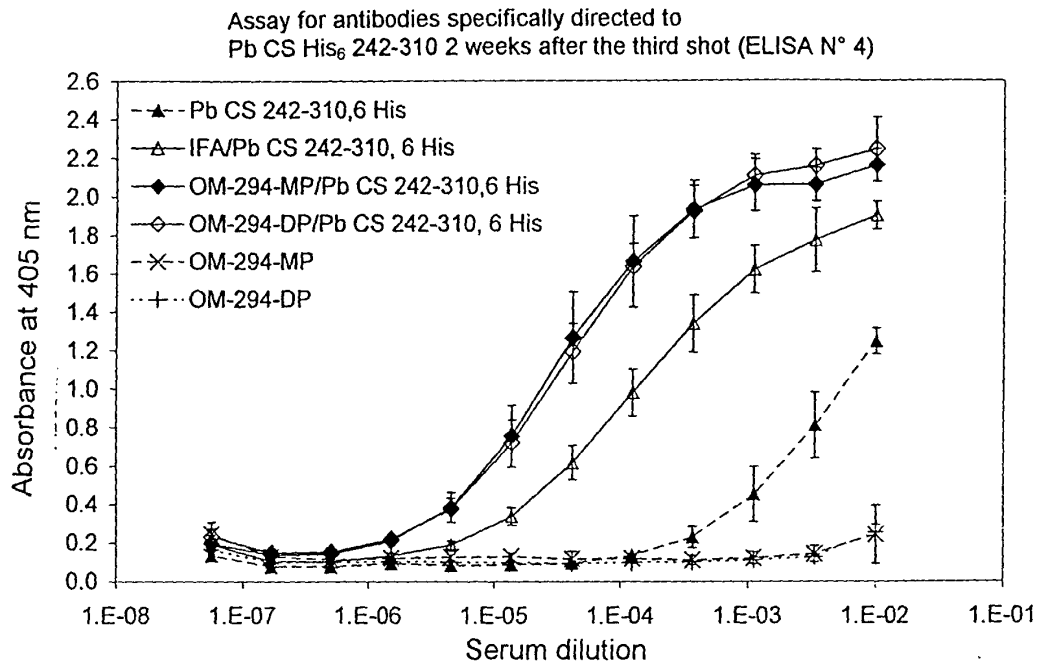
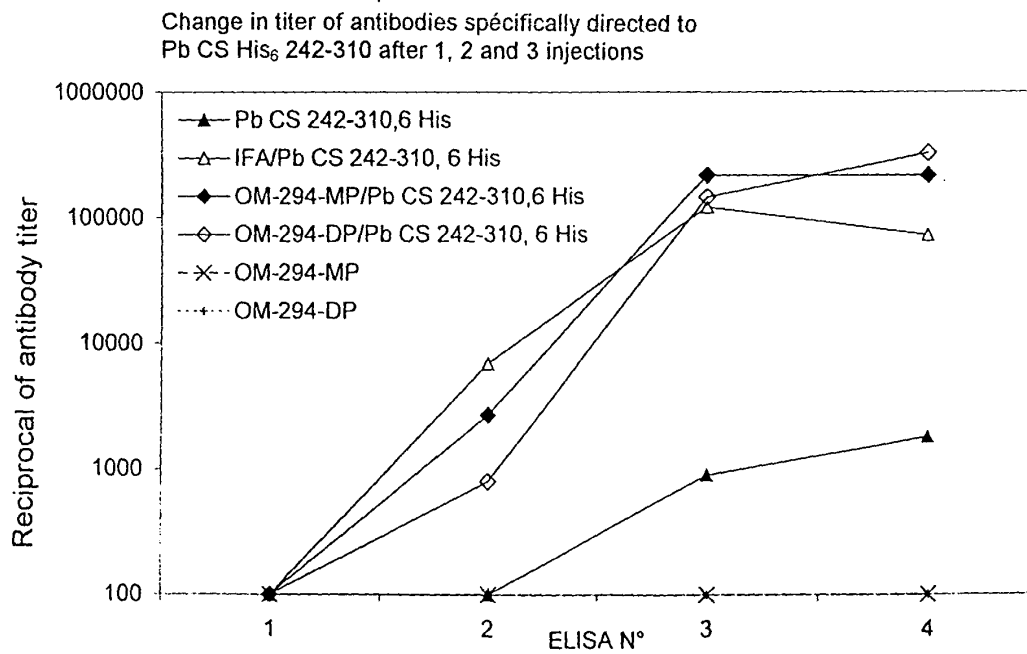
ELISA 4 after the third immunization treatment

FIGURE 16

Antibody titer before and after one, two and three immunizations treatments

9/32

FIGURE 17

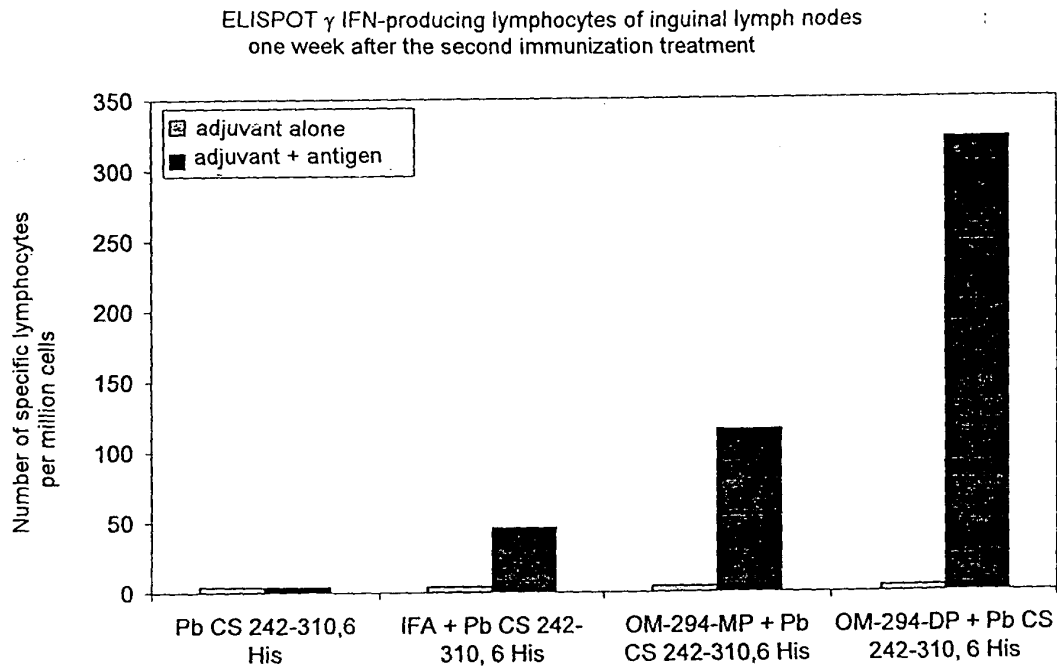
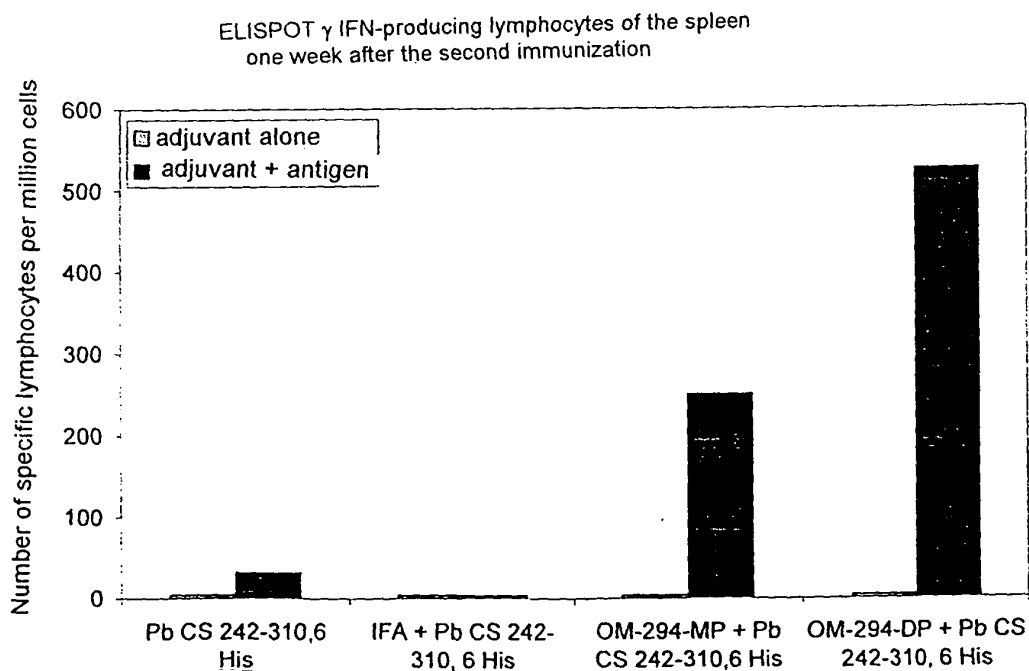
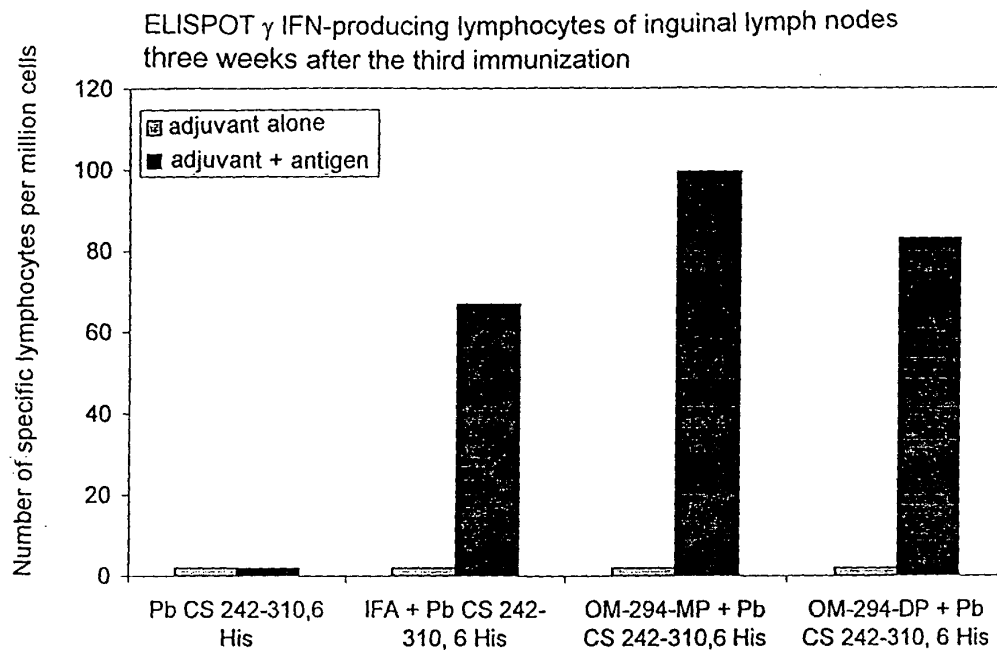
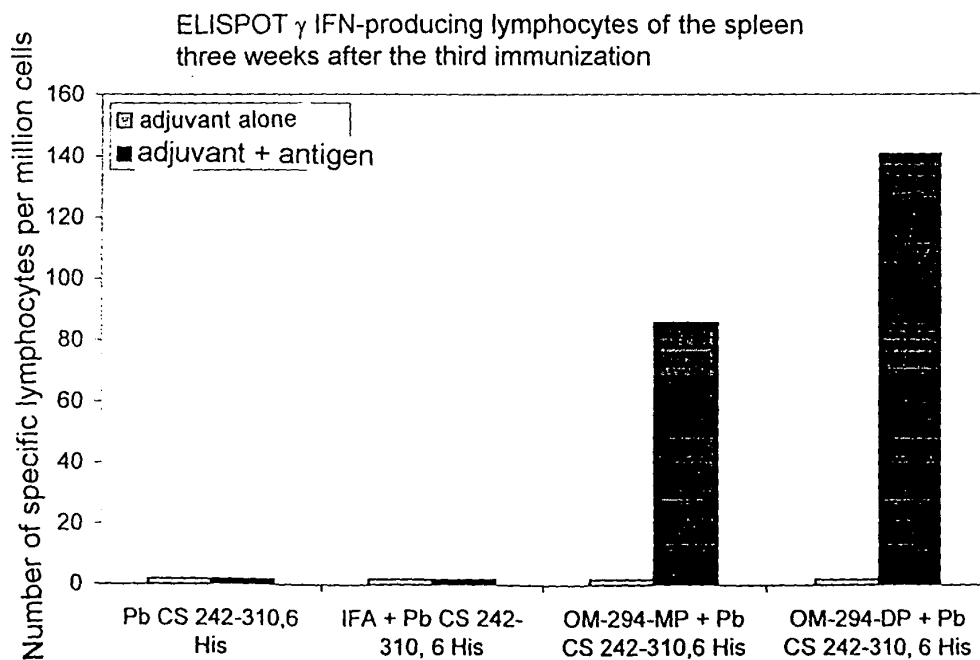
ELISPOT γ IFN-producing lymphocytes of inguinal lymph nodes stimulated by Pb CS245 - 252 one week after the second immunization treatment

FIGURE 18

ELISPOT γ IFN-producing lymphocytes of the spleen stimulated by Pb CS 245 - 252
one week after the second immunization

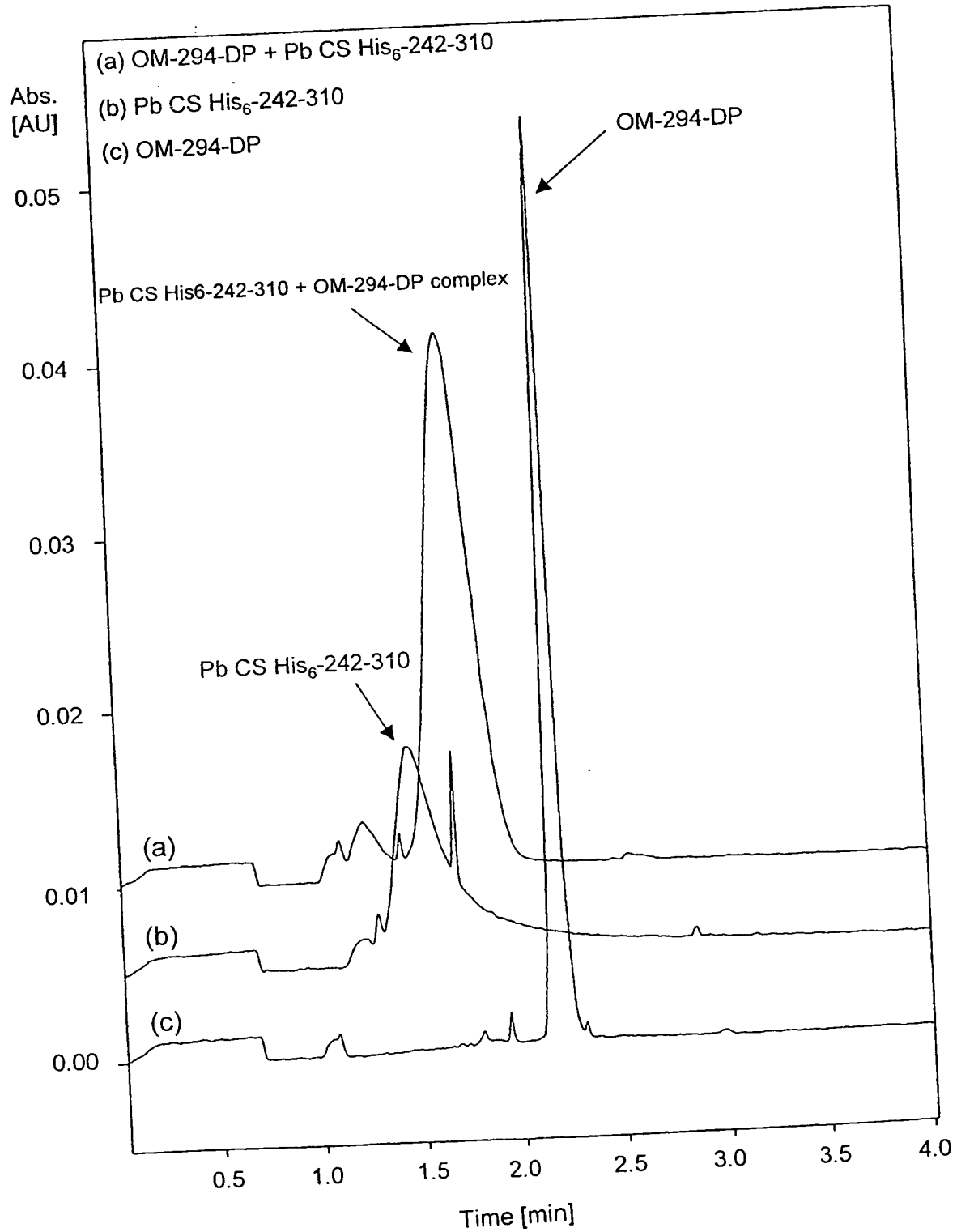
10/32

FIGURE 19ELISPOT γ IFN-producing lymphocytes of the spleen stimulated by Pb CS 245 - 252one week after the second immunization**FIGURE 20**ELISPOT γ IFN-producing lymphocytes of the spleen stimulated by Pb CS 245 - 252three weeks after the third immunization

11/32

FIGURE 21

Electrophoretogram of OM-294-DP alone, of Pb CS His6-242-310 antigen alone and of Pb CS His6-242-310 - OM-294-DP complex



12/32

FIGURE 22

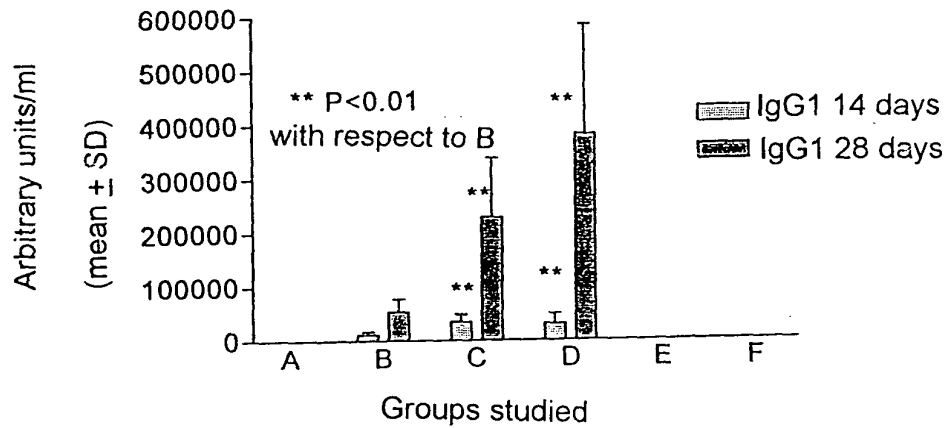
IgG1 specific antibodies directed to H1N1

FIGURE 23

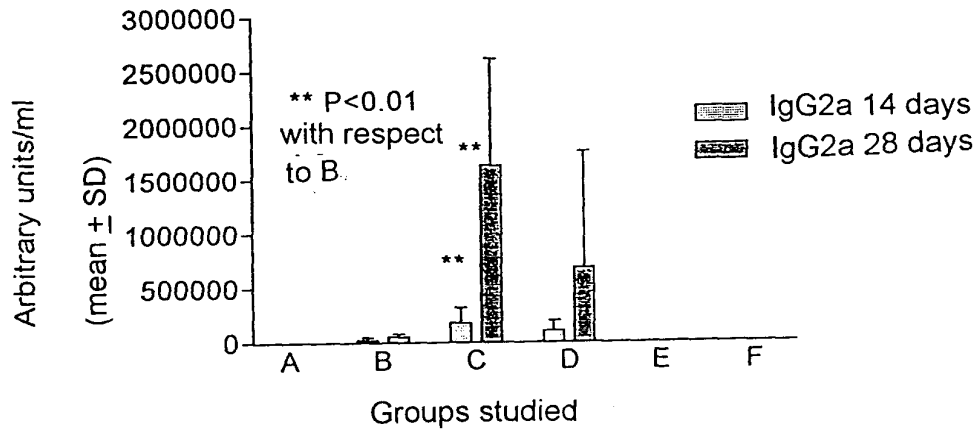
IgG2a specific antibodies directed to H1N1

FIGURE 24

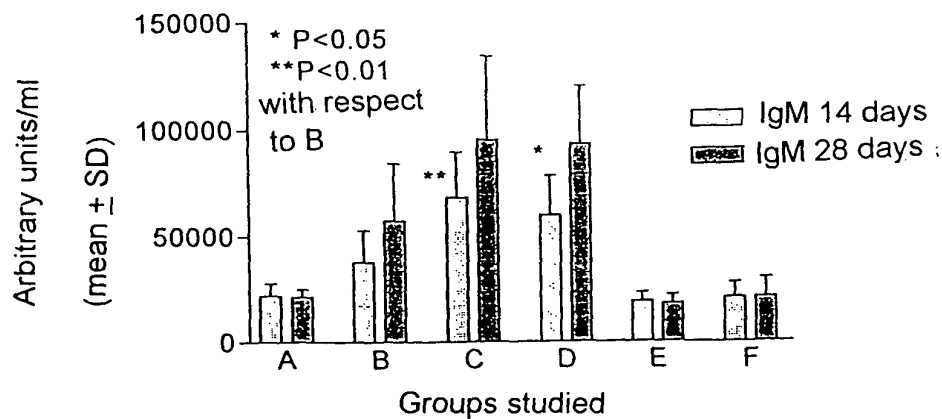
IgM specific antibodies directed to H1N1

FIGURE 25

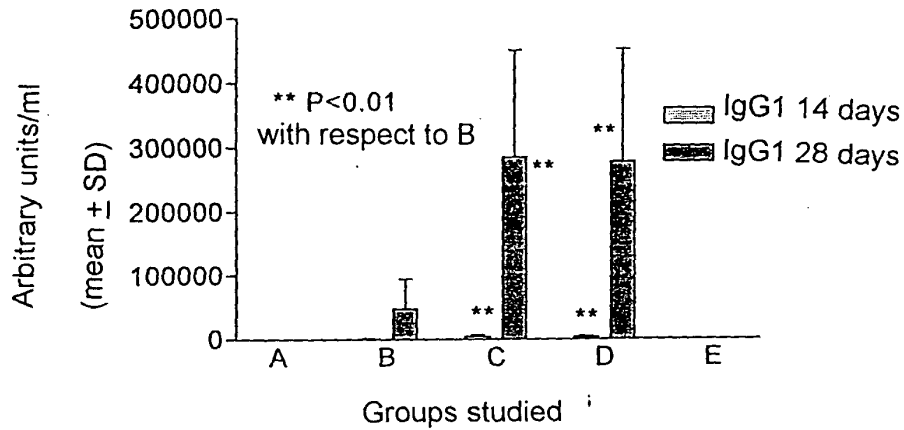
IgG1 specific antibodies directed to ovalbumin

FIGURE 26

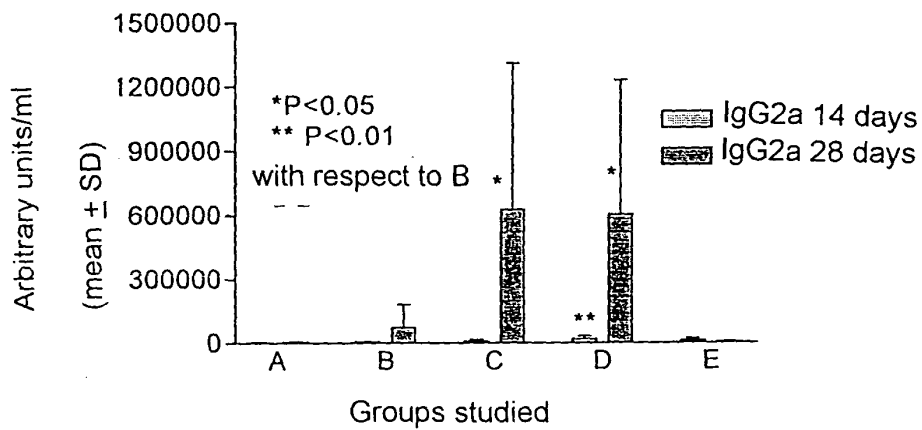
IgG2a specific antibodies directed to ovalbumin

FIGURE 27

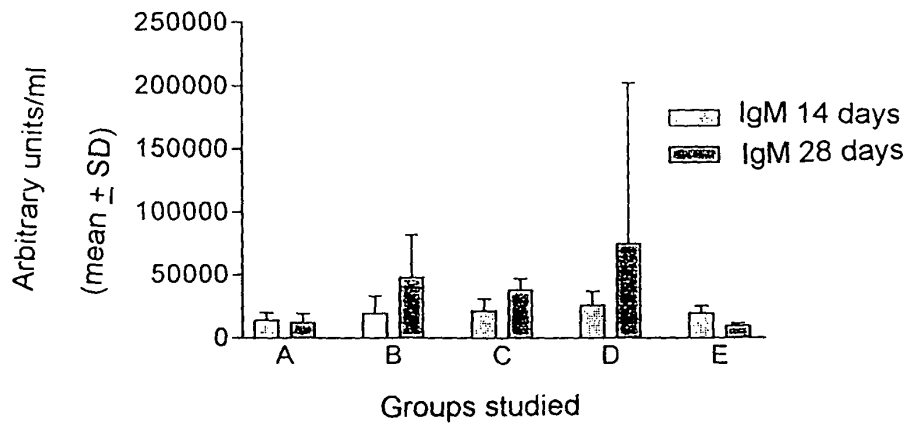
IgM specific antibodies directed to ovalbumin

FIGURE 28

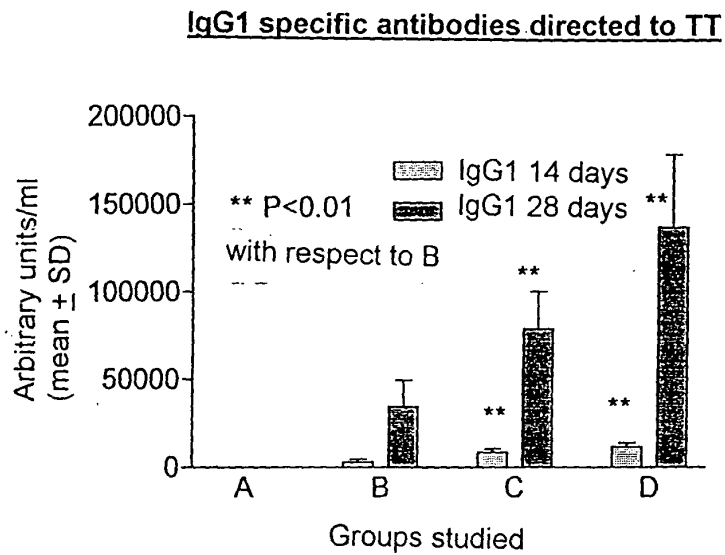


FIGURE 29

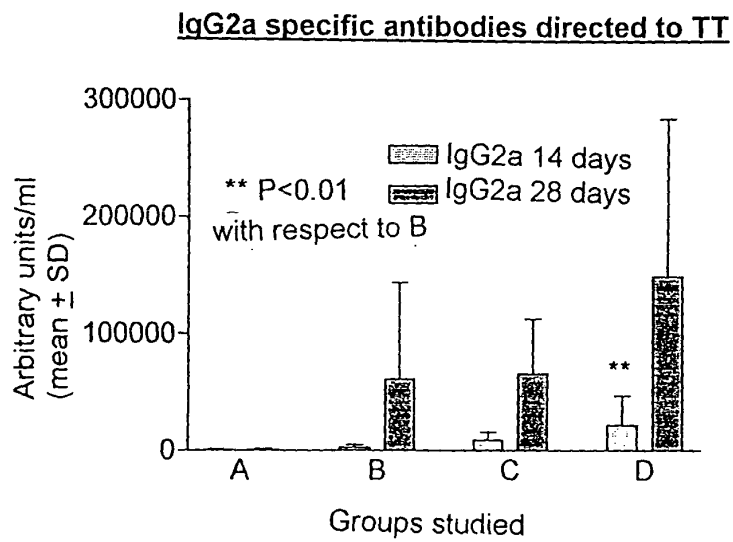


FIGURE 30 (a)

Increase in the anti-gp63 immune response under the effect of OM-294-MP

adjuvant : Comparison with BCG

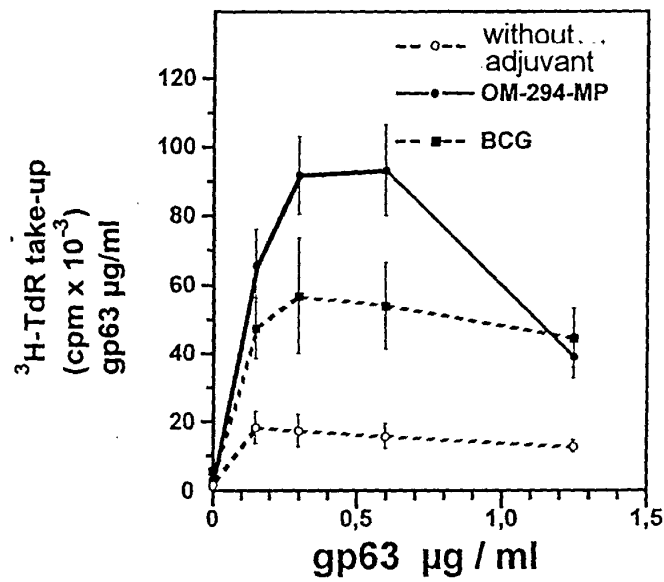


FIGURE 30 (b)

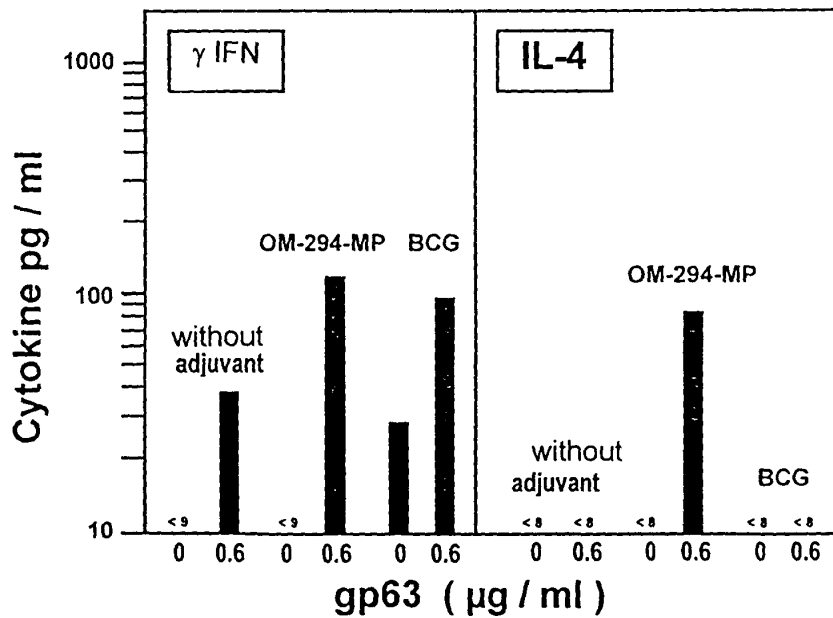


FIGURE 31 (a)

In vitro lymph node lymphocyte response derived from mice previously immunized in vivo with LmCPb antigen : effect of OM-294-MP adjuvant during the primary response

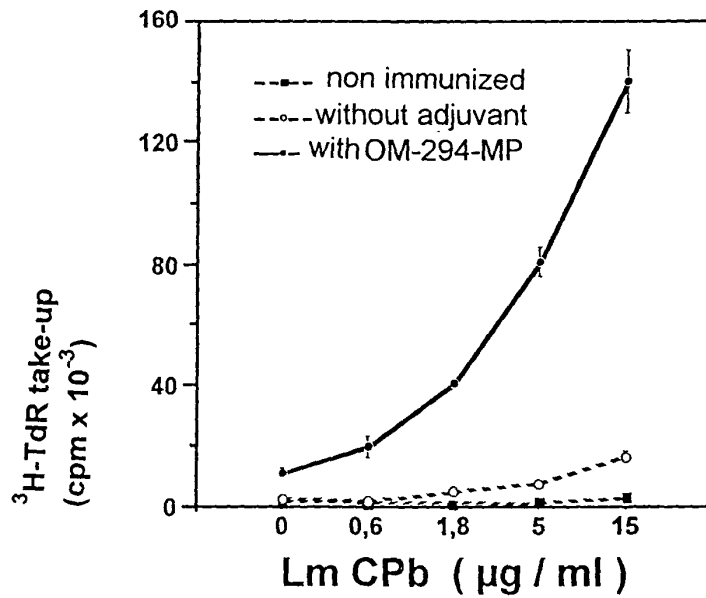
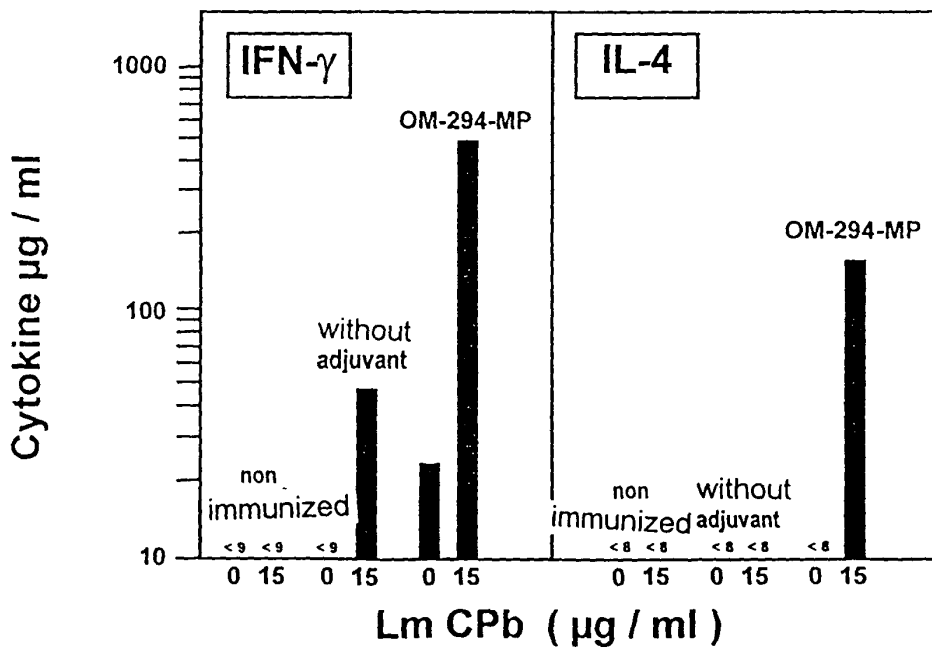


FIGURE 31 (b)



17/32

FIGURE 32 (a)

Increase in the anti-LmCPb immune response under the effect of OM-294-MP

adjuvant : Comparison with BCG

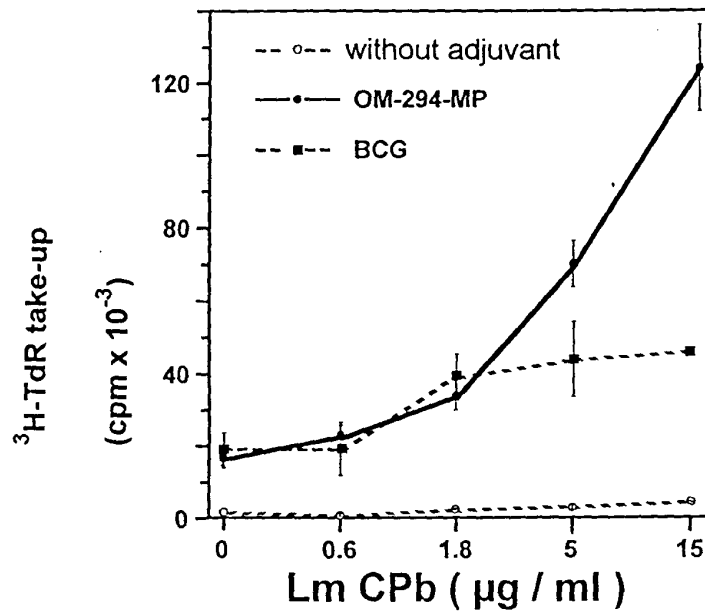


FIGURE 32 (b)

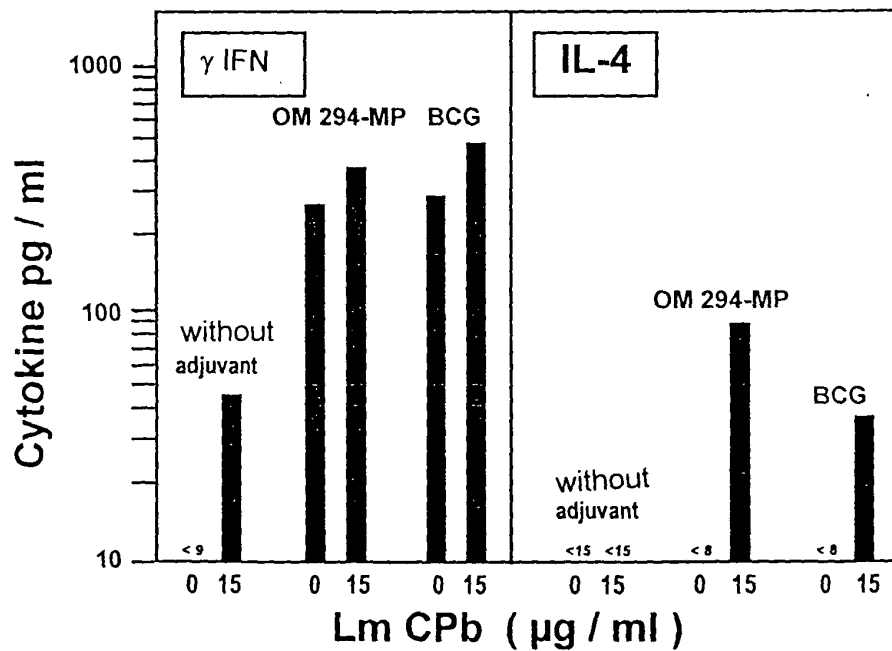


FIGURE 33

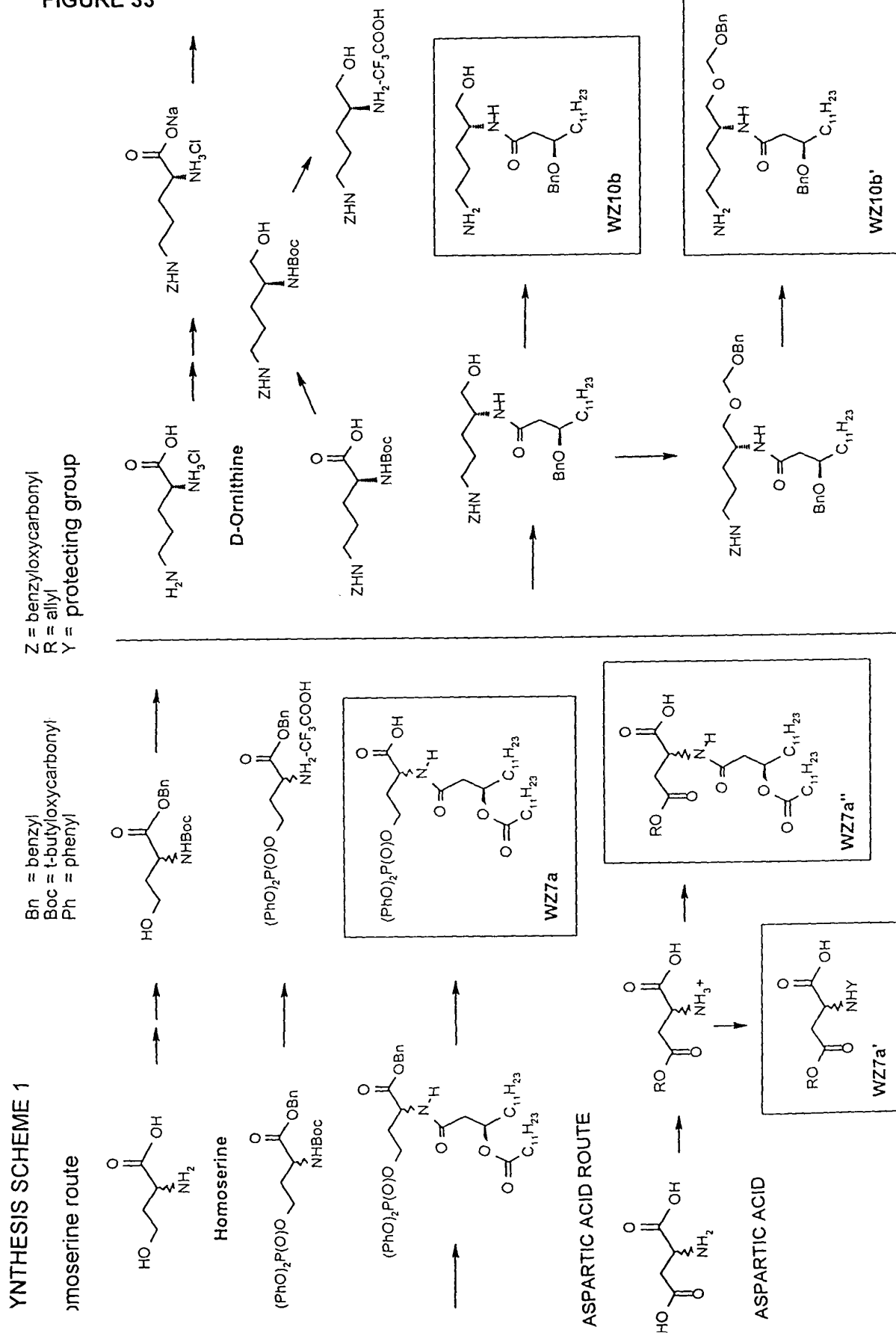


FIGURE 34

SYNTHESIS SCHEME 2

Bn = benzyl
Ph = phényl

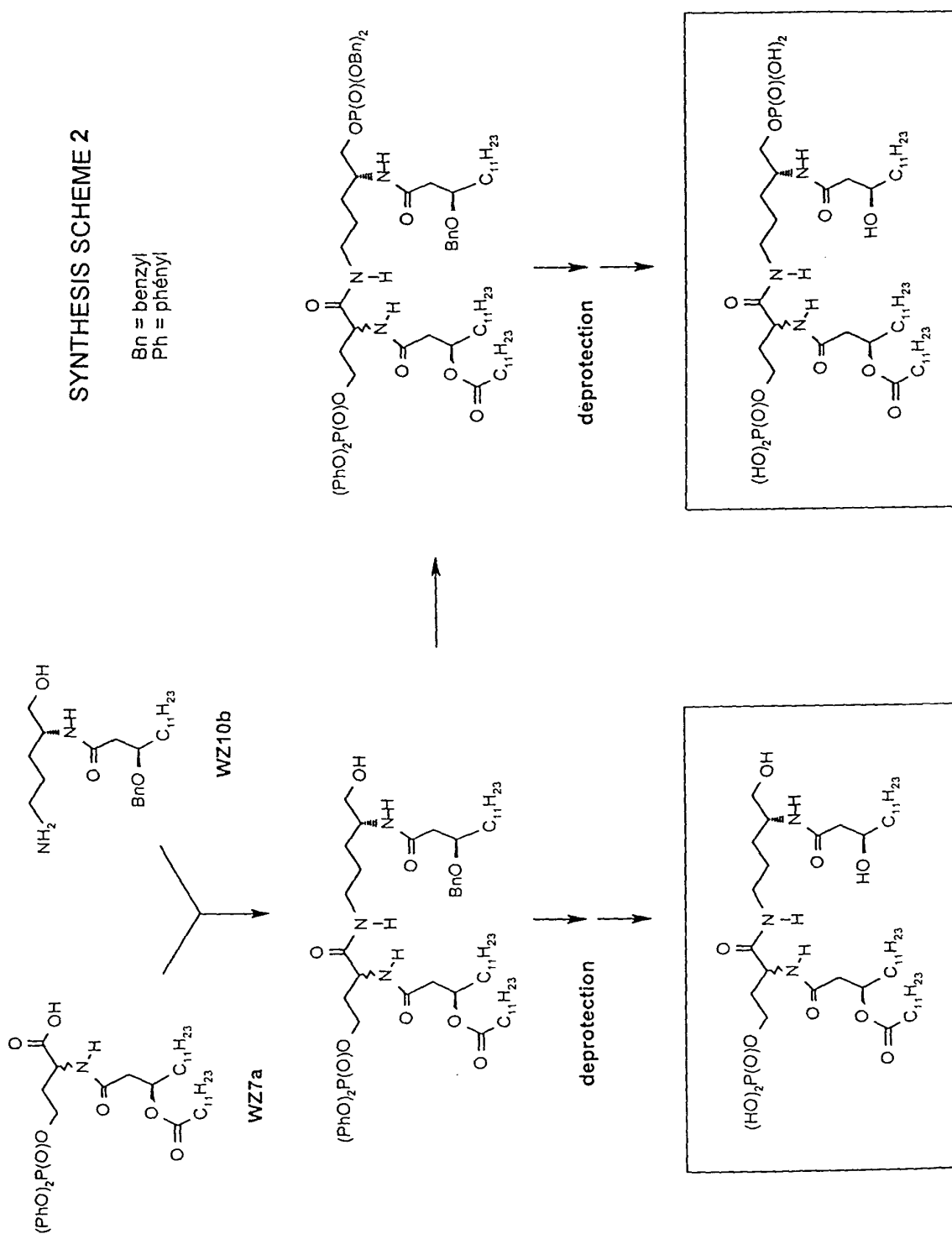


FIGURE 35

SYNTHESIS SCHEME 3

Bn = benzyl
Ph = phenyl

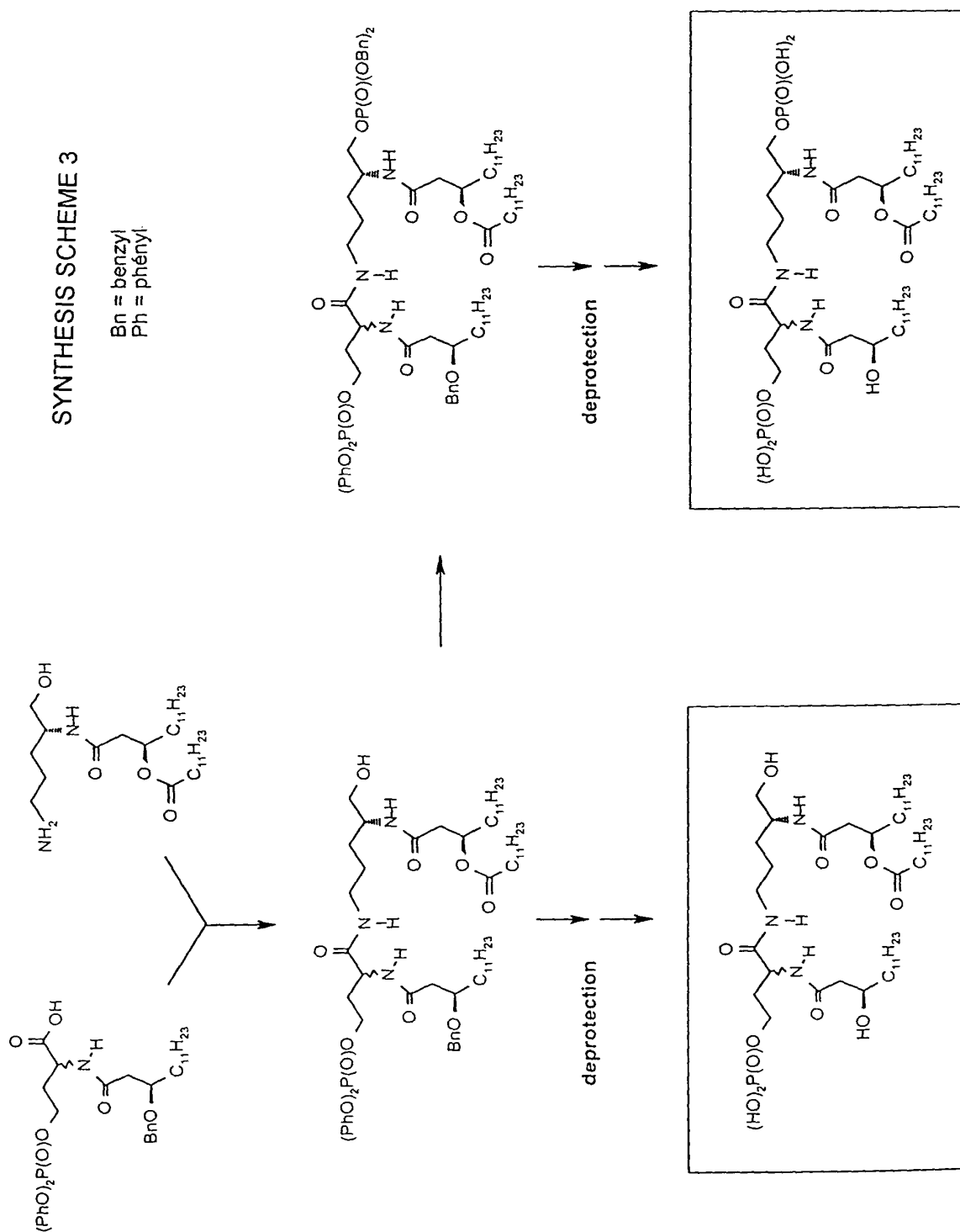


FIGURE 36

SYNTHESIS SCHEME 4

Bn = benzyl

R = allyl

Y = protecting group

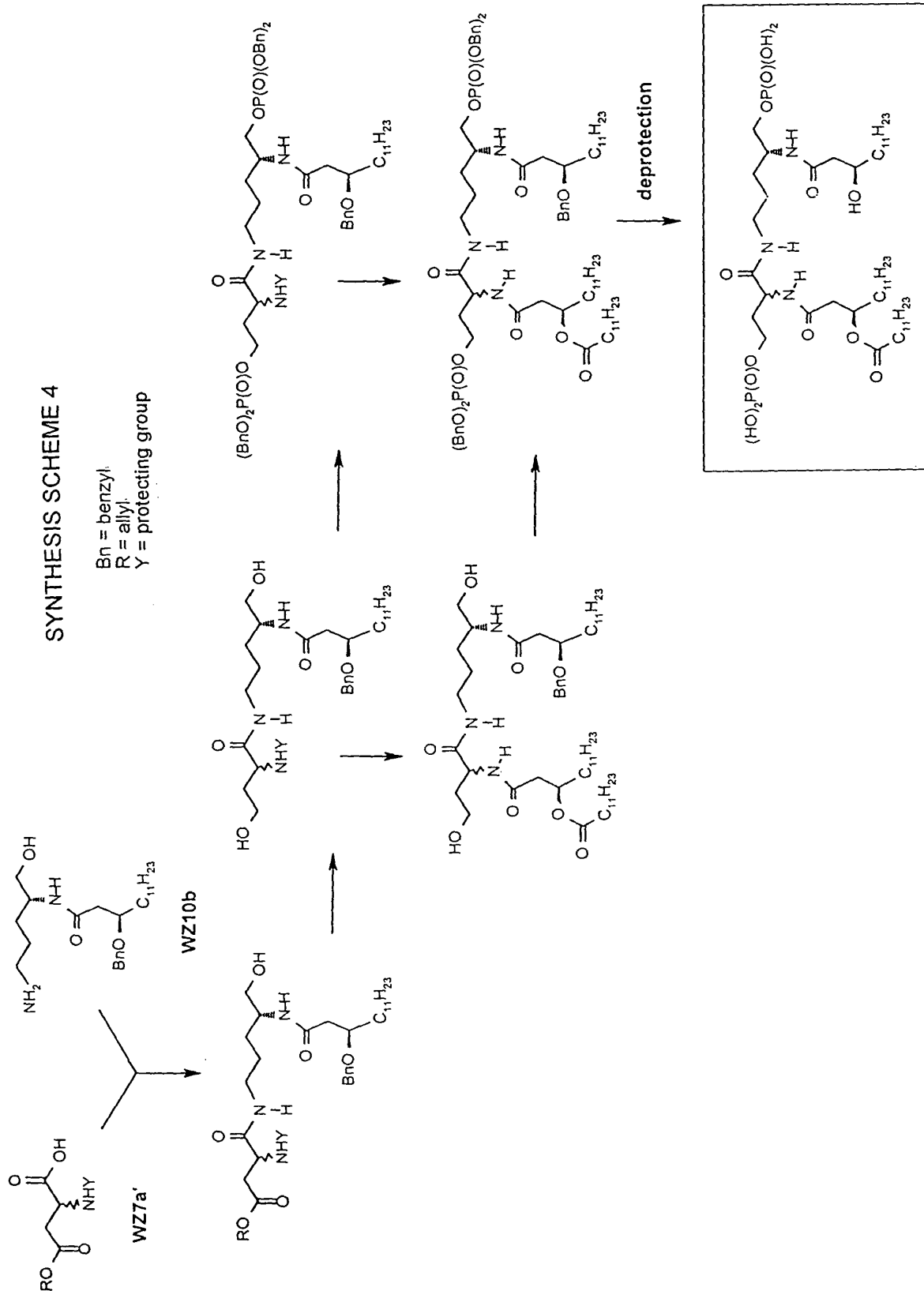
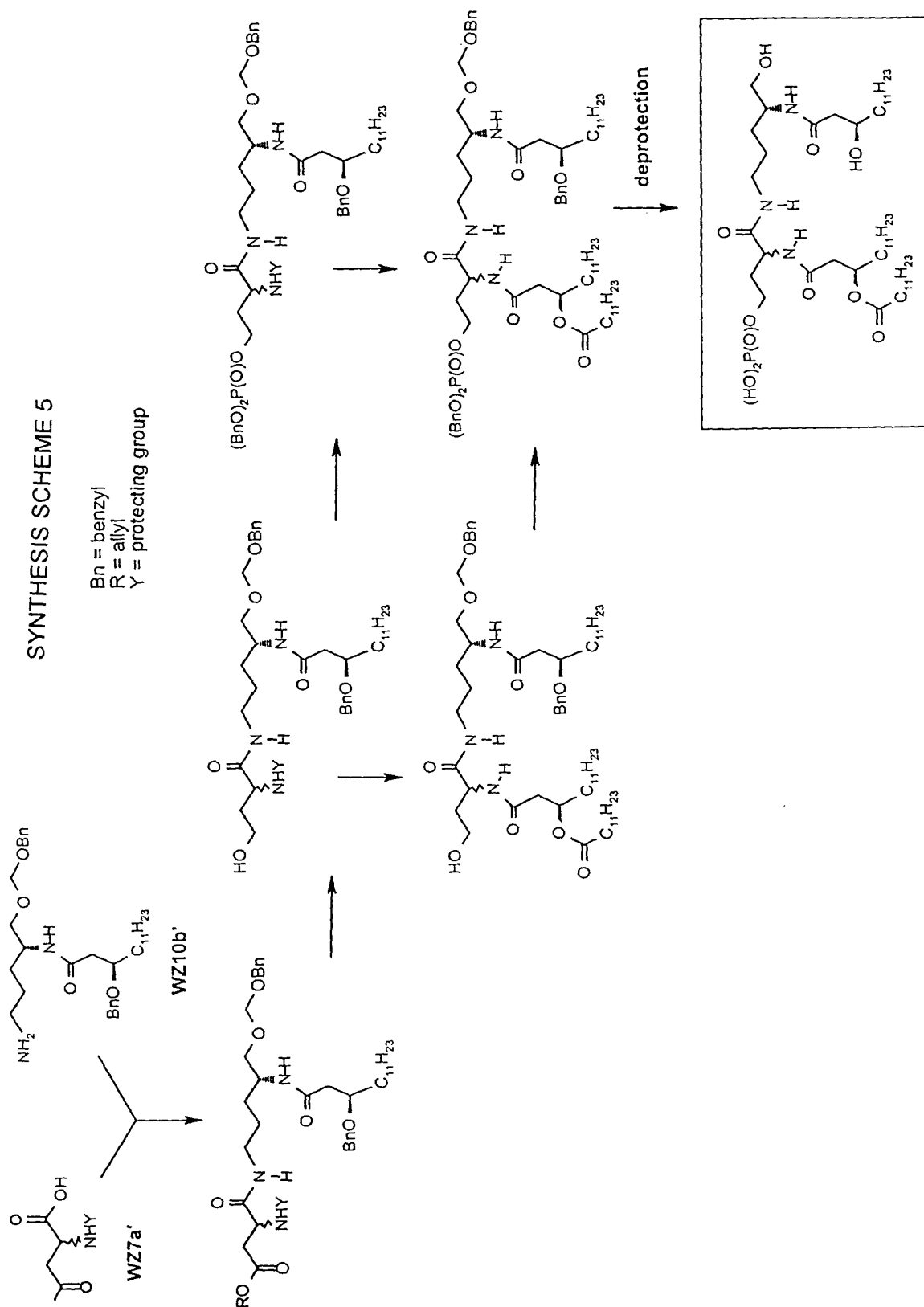


FIGURE 37



23/32

FIGURE 38

SYNTHESIS SCHEME 6

Bn = benzyl
R = Allyl

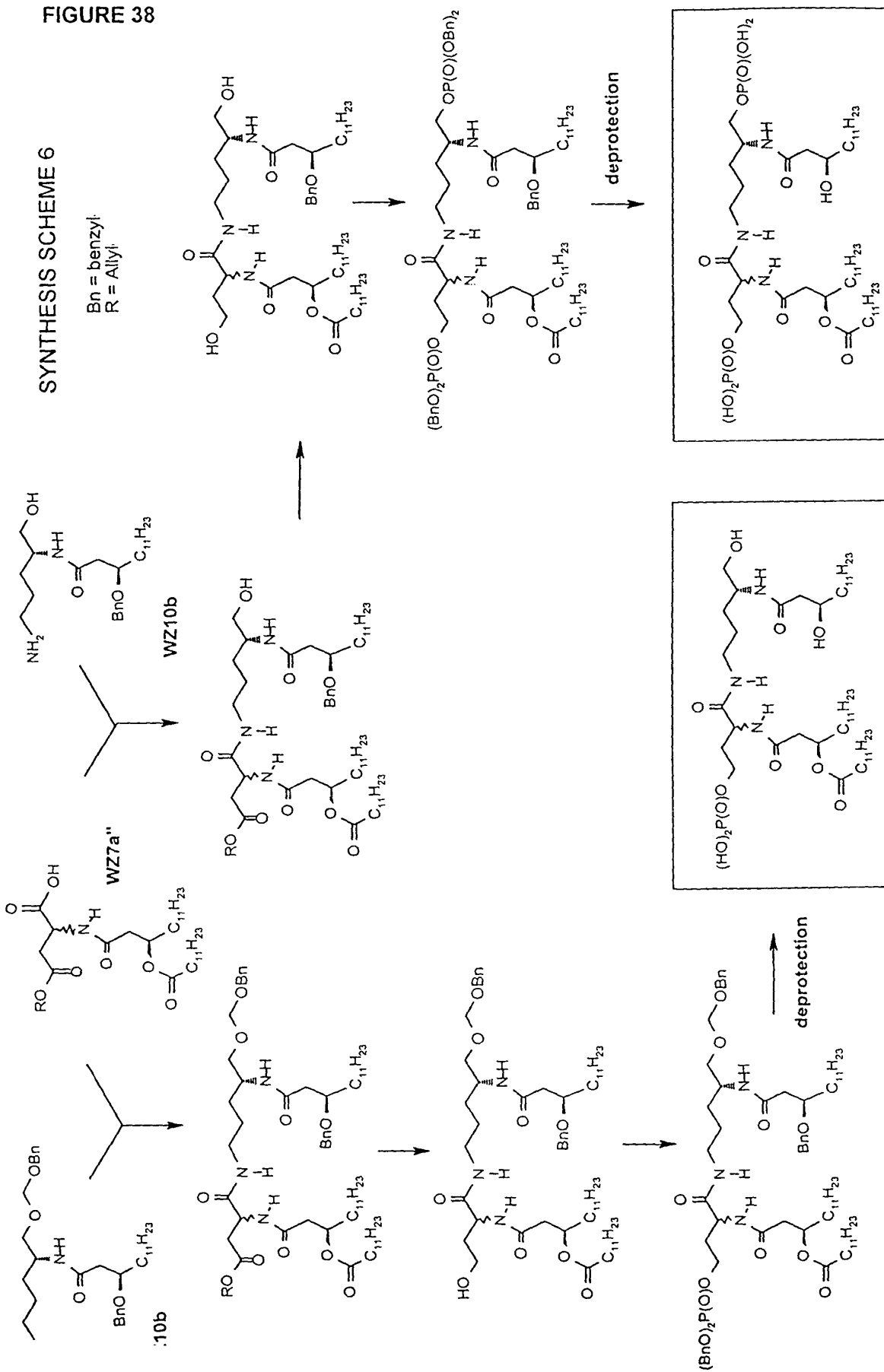
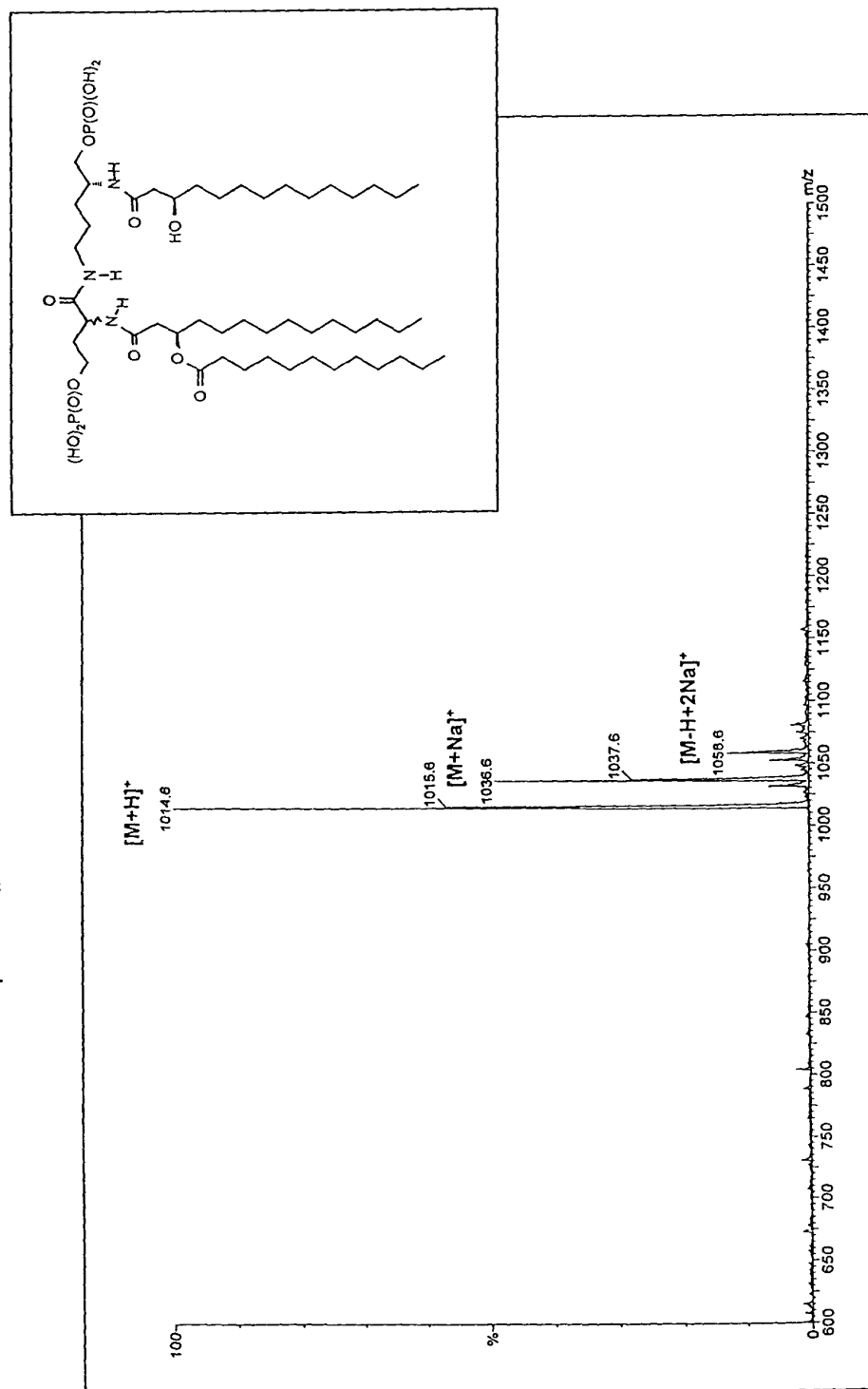


FIGURE 39

Diphosphorylated compound
ES-MS spectra (positive mode)

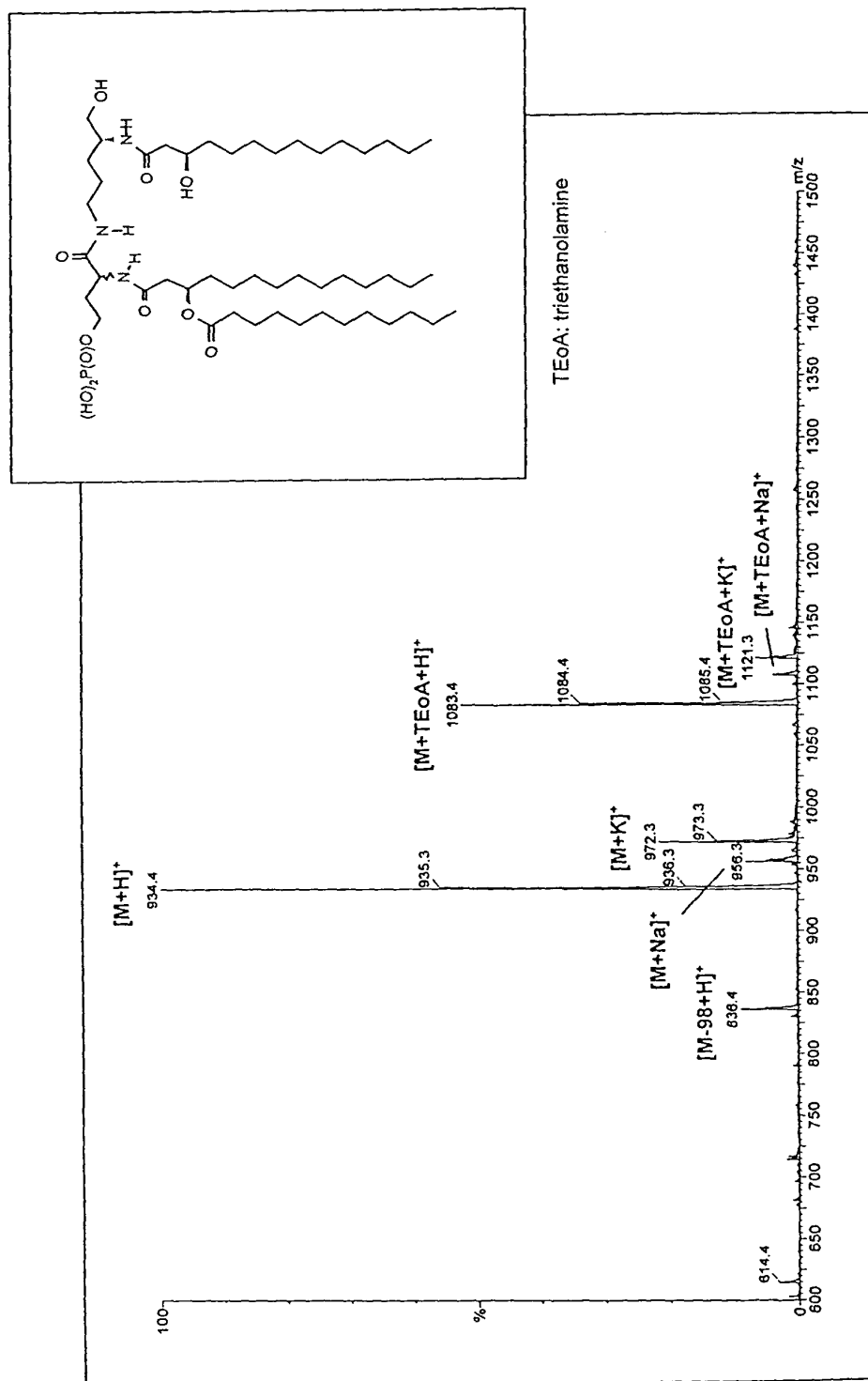
SPECTRUM 1



Instrumentation: Micromass Quattro II (Z-spray), triple stage quadrupole

FIGURE 40

SPECTRUM 2
monophosphorylated compound
ES-MS spectra (positive mode)



Instrumentation: Micromass Quattro II (Z-spray), triple stage quadrupole

FIGURE 41

SPECTRUM 3

Diphosphorylated compound

ES-MS spectra (positive mode fragmentation)

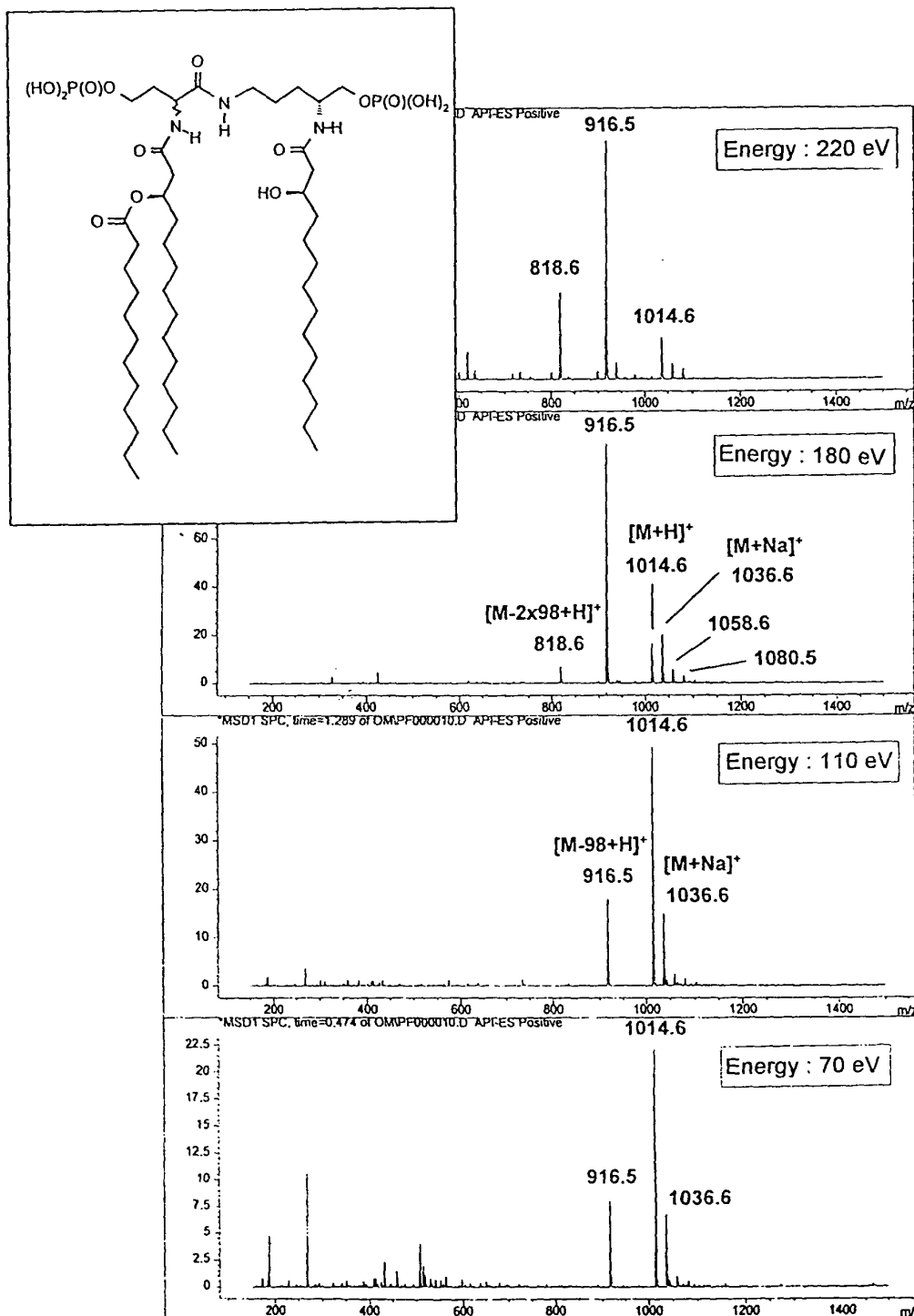
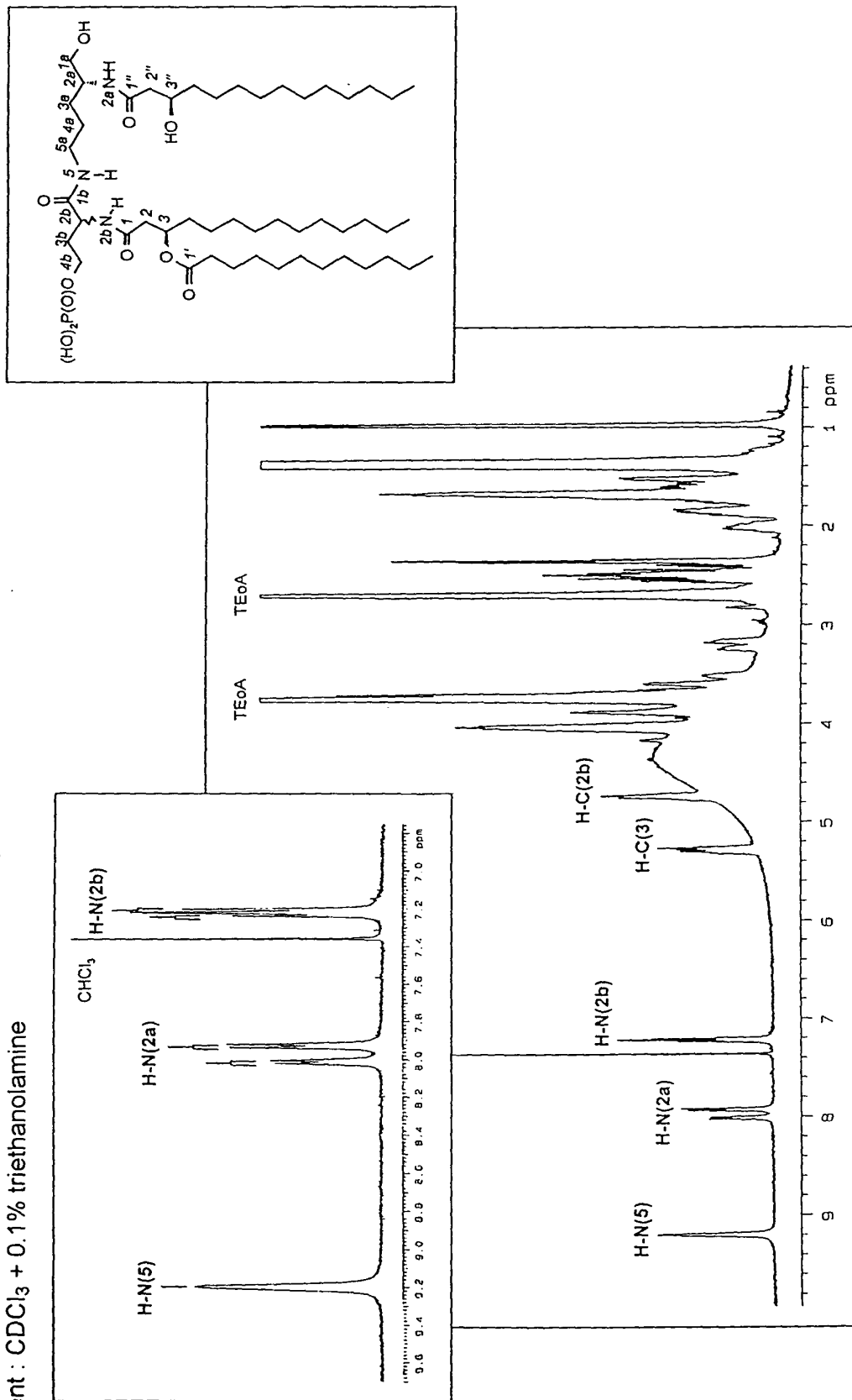


FIGURE 42

monophosphorylated compound

 ^1H -NMR Spectrumsolvent: CDCl_3 + 0.1% triethanolamine

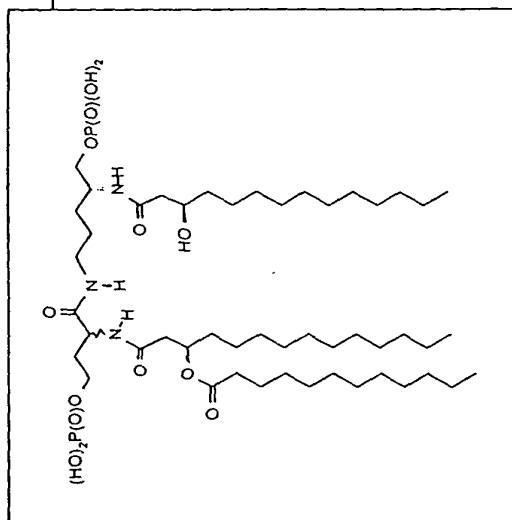
SPECTRUM 4



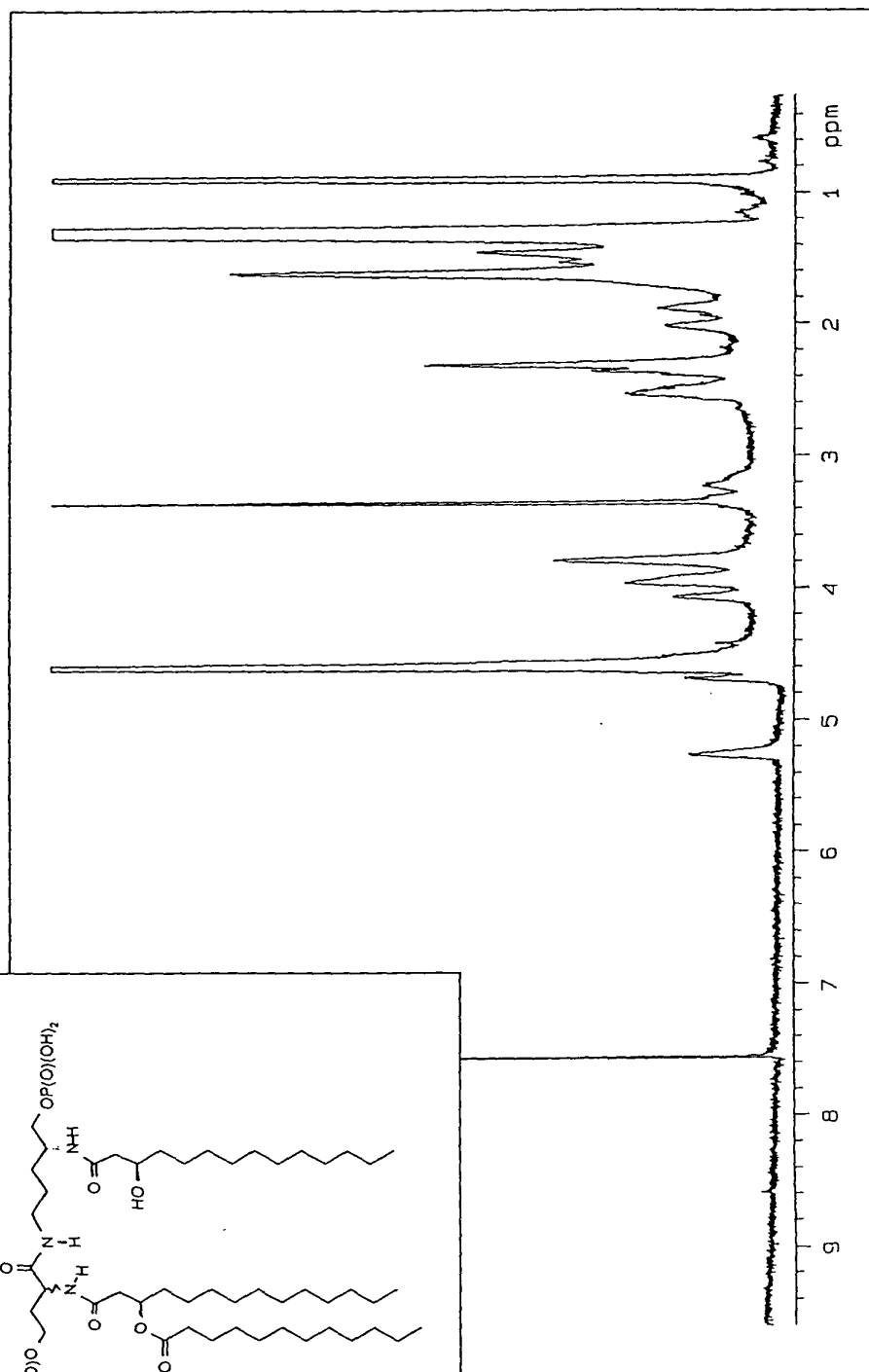
Instrumentation: Varian Unity INOVA 500 MHz

monophosphorylated compound

SPECTRUM 5

¹H-NMR Spectrum

Solvent : (3:1 v/v) CDCl_3 : CD_3OD

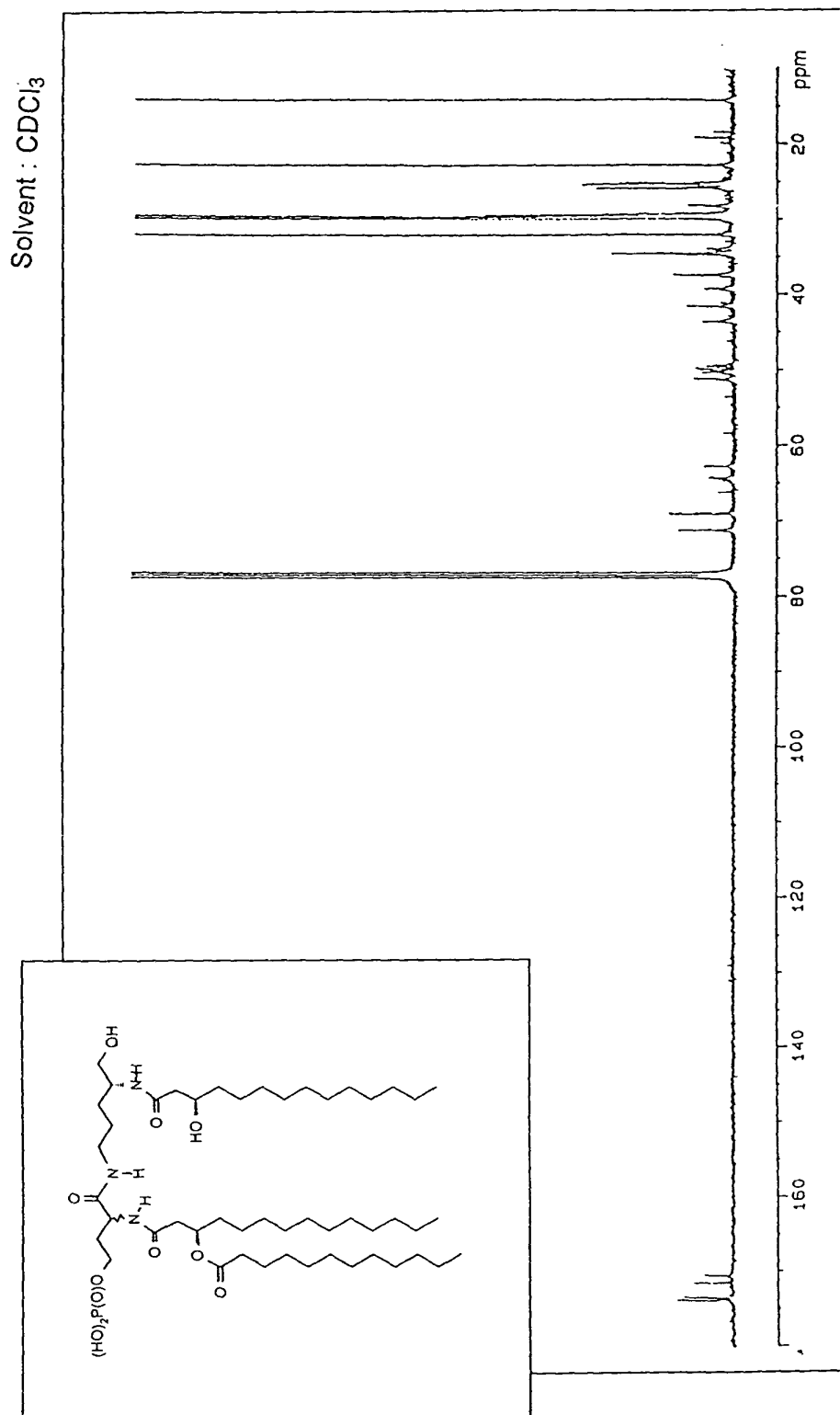


Instrumentation: Varian Unity INOVA 500 MHz

FIGURE 44

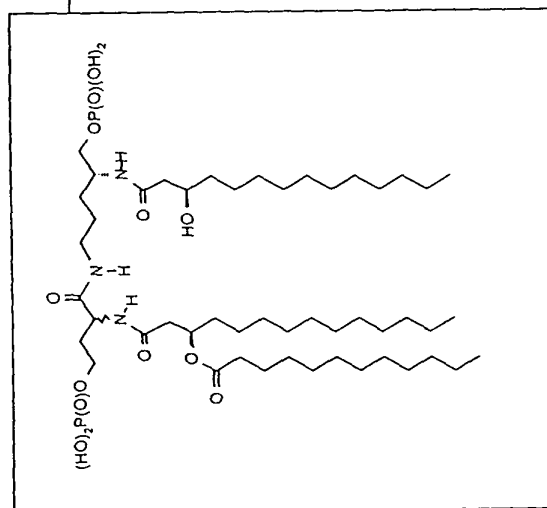
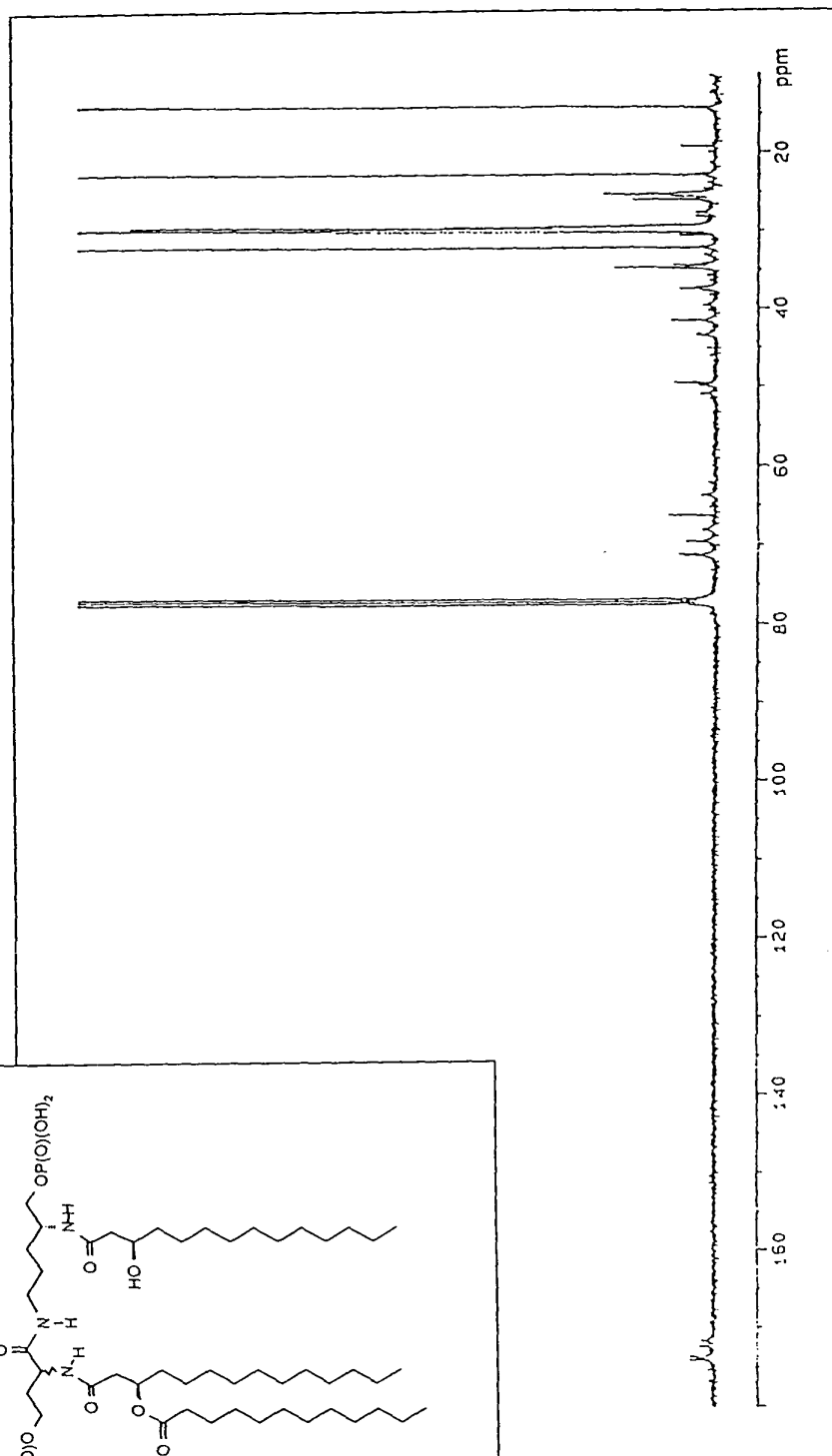
monophosphorylated compound

SPECTRUM 6

 ^{13}C -NMR Spectrum

Diphosphorylated compound

Spectrum 7

¹³C-NMR SpectrumSolvent: CDCl_3 

Instrumentation: Bruker DPX 250 MHz

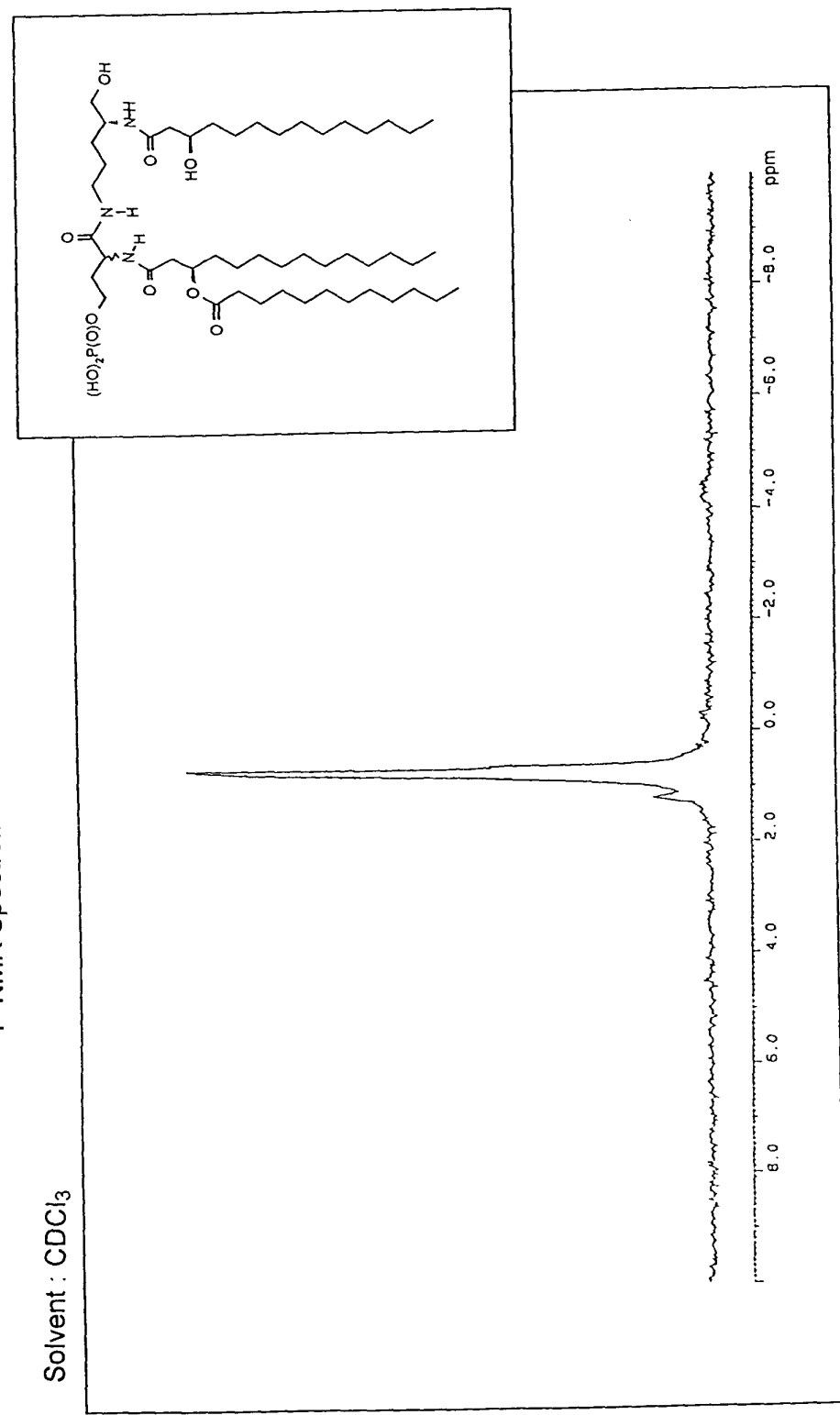
FIGURE 46

monophosphorylated compound

³¹P-NMR Spectrum

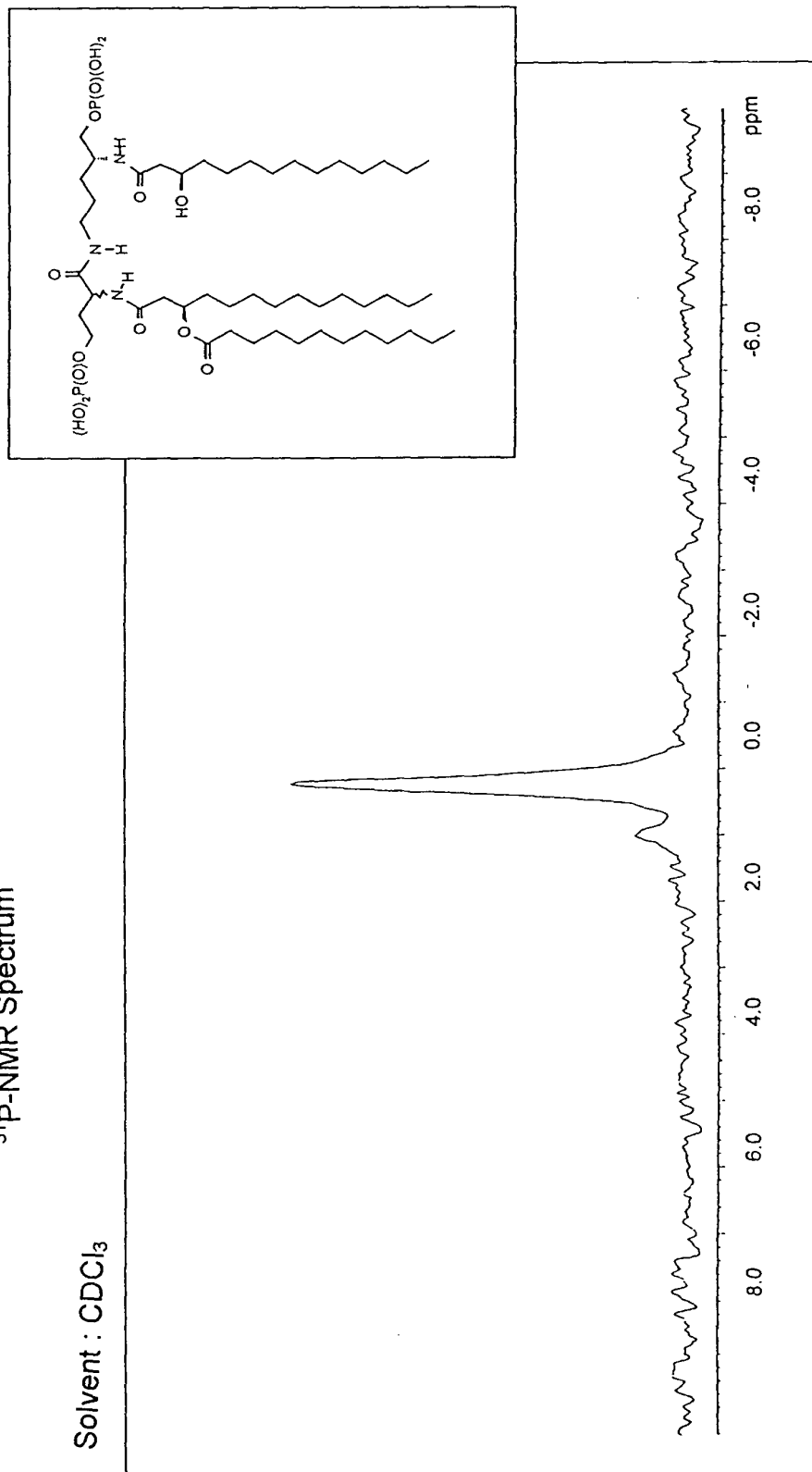
Spectrum 8

Solvent : CDCl₃



Instrumentation: Bruker DPX 300 MHz

FIGURE 47

Spectrum 9 Diphosphorylated compound
 ^{31}P -NMR SpectrumSolvent : CDCl_3 

Instrumentation: Bruker DPX 300 MHz